

EXHIBIT A

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OLIVIA BLYMER, individually, and
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BLYMER, individually and as parents and
natural guardian of RILEY BLYMER, and
ANTHONY CASAZZA,

Plaintiffs,

vs.

SOLVAY SPECIALTY POLYMERS USA,
LLC; SOLVAY SOLEXIS, INC.; VIRGINIA
HUBERT; THE 3M COMPANY; AGC
CHEMICALS AMERICA INC., and JOHN
DOE ENTITIES #1-10,

Defendants.

SUPERIOR COURT OF NEW JERSEY
LAW DIVISION - CAMDEN COUNTY

DOCKET NO.: CAM-L- 1657-25
CIVIL ACTION

**FIRST AMENDED COMPLAINT,
JURY DEMAND, AND DESIGNATION
OF TRIAL COUNSEL**

Plaintiffs, OLIVIA BLYMER individually, and KELLYANN BLYMER and JAMES
BLYMER, individually and as parents and natural guardians of RILEY BLYMER, and
ANTHONY CASAZZA by way of Complaint against Defendants, SOLVAY SPECIALTY
POLYMERS USA, LLC; SOLVAY SOLEXIS, INC.; VIRGINIA HUBERT; THE 3M

COMPANY, INC.; AGC CHEMICALS AMERICA INC., and JOHN DOE ENTITIES #1-10
(collectively “Defendants”), allege as follows:

I. Nature of Action.

This is a civil action brought by OLIVIA BLYMER (“Olivia”), as well as by KELLYANN BLYMER (“Kellyann”) and JAMES BLYMER (“James”) individually and as parents and natural guardians of RILEY BLYMER (“Riley”), a minor and ANTHONY CASAZZA. It seeks to recover damages for personal injuries suffered by Olivia and Riley because of wrongful exposure to certain toxic substances proximately caused by the conduct of Defendants. Kellyann and James also seek derivative damages for the injuries suffered by their children. It seeks to recover damages for personal injuries suffered by ANTHONY CASAZZA (“Anthony”) because of wrongful exposure to certain toxic substances proximately caused by the conduct of Defendants.

II. Plaintiffs’ Injuries

1. Olivia Blymer suffers from personal injuries including but not limited to the following:

- a. Ovarian cancer,
- b. Liver cancer,
- c. Oophorectomy,
- d. Salpingectomy,
- e. Lumbarization,
- f. pain and suffering,
- g. emotional distress,
- h. disability, and
- i. loss of enjoyment of life’s pleasures.

2. Riley Blymer suffers from personal injuries including but not limited to the following:

- a. Birth defects, Ollier's disease¹,
- b. Eosinophilic esophagitis²,
- c. Pain and suffering,
- d. emotional distress,
- e. disability, and
- f. loss of enjoyment of life's pleasures.

3. Plaintiffs Kellyann Blymer and James Blymer have sustained derivative injuries as a consequence of the expenditure of monies for the care and treatment of Olivia Blymer and Riley Blymer, for the loss of services from Olivia and Riley, and have experienced emotional distress as a consequence of their daughter's injuries and condition.

4. Plaintiff Anthony Casazza suffers from personal injuries including but not limited to the following:

- a. Ulcerative colitis;
- b. Rectal mucinous adenocarcinoma (rectal cancer);
- c. Precancerous polyps;
- d. Ileostomy;
- e. Anxiety;

¹ Ollier's disease, also known as enchondromatosis is a non-hereditary bone disorder characterized by multiple benign cartilage growths called enchondromas within the bones. These growths cause bone deformities, shortening of limbs, and fractures. Enchondromas in Ollier's disease have a potential for malignant transformation, with a risk of developing chondrosarcoma

² Eosinophilic esophagitis (EoE) is a chronic incurable condition where the esophagus becomes inflamed due to an overabundance of eosinophils, a type of white blood cell. This inflammation can cause difficulty swallowing, food impaction, and other digestive issues.

- f. Social and emotional distress;
- g. Profound pain and suffering and mental anguish; and
- h. Loss of the ability to enjoy life's pleasures.

III. The Substances Proximately Causing Plaintiffs' Injuries

5. Plaintiffs' injuries and derivative damages were foreseeably caused by Defendants' misconduct, which resulted in the release of PFAS (per-and polyfluoroalkyl substances) and other substances to which Plaintiffs were exposed (hereafter collectively the "Toxins").³

5. The Toxins individually and in mixtures have the capacity to cause and/or to aggravate the injuries and disorders suffered by Plaintiffs as well as:

- a. adverse reproductive outcomes including but not limited to infertility, subfertility, premature births, spontaneous abortion, still birth, birth defects, developmental delays, genetic damage, and embryonic tumors,
- b. malignancies, tumors and neoplasms including but not limited to breast cancer, kidney cancer, brain cancer, ovarian cancer, bladder cancer, sarcoma, testicular cancer, pancreatic cancer, colon cancer, liver cancer, and embryonal tumors,
- c. non-malignant disorders including, diabetes, gestational diabetes, kidney disease, kidney failure, peripheral neuropathy, obesity, thyroid disease, endometriosis, elevated cholesterol, coronary artery disease, impaired vision, and scoliosis.

³ PFAS include, but are not limited to perfluorononanoic acid ("PFNA" or "C9"), perfluorooctanoic acid ("PFOA"), perfluorooctanesulfonic acid ("PFOS"), and Surflon, a mixture, which as discussed below contains multiple PFAS including C9, PFOA or C8, and longer carbon-chained PFAS. As is also discussed *infra*, the Toxins are not limited to PFOS, PFOA, PFOS, and Surflon. Instead, Solvay also emitted and discharged from the Leonard Lane facility other PFAS, including perfluoropolyether dicarboxylates (PFPE-DCAs), CIPFPECAs, and monofunctional surfactants (MFS) and bifunctional surfactants (BFS), sometimes referred to as replacement compounds, in addition to other contaminants, including semi-volatile organic compounds (SVOCs), volatile organic compounds (VOCs), metals, and polychlorinated biphenyls (PCBs).

6. The Toxins have the capacity to act in an additive and/or synergistic fashion such that exposures to the Toxins and mixed exposures to the Toxins and other toxic substances enhance their capacity to inflict and/or exacerbate the harm(s) of the type described above.

7. The mechanisms by which these Toxins inflict harm include but are not limited to:

- a. apoptosis (cell death),
- b. oxidative stress,
- c. genotoxicity (spontaneous or de novo mutation),
- d. epigenetic change,
- e. diminished cellular nourishment,
- f. impaired cell-to-cell communication,
- g. endocrine disruption,
- h. impaired or excessive immune response,
- i. intrauterine growth retardation,
- j. impaired organogenesis,
- k. the capacity to cross placental and brain barriers,
- l. bio-persistence.

8. There is no safe level of exposure to the Toxins.

9. While exposure to the Toxins (e.g., quantum of exposure, duration(s) of exposure and timing of exposure relative to the adverse outcome) typically operate along a dose-response gradient such that increases in the amount and duration of exposure increase the potential for harm, even a single exposure in a small amount has the capacity to cause or aggravate the injuries sustained by Plaintiffs, Olivia Blymer and Riley Blymer and Anthony Casazza, and cause other injuries.

10. Plaintiffs' exposures to the Toxins and mixtures of the Toxins are sufficient to have proximately caused Plaintiffs, Olivia and Riley Blymer's and Anthony Casazza's, bodily injuries.
11. Because of Defendants' intentional, knowing, reckless, grossly negligent, and negligent acts and omissions described in this Complaint, resulting in the contamination of the water, air, and soil by the Toxins, to which, Anthony Casazza, and Olivia Blymer Riley Blymer, Kellyann Blymer and James Blymer, were exposed, Plaintiffs seek to recover compensatory and punitive damages and assert that Defendants are jointly and severally liable to Plaintiffs.
12. These exposures occurred in and around Plaintiffs' residences, prior to their birth and thereafter, and at other locations where the Toxins were present.⁴
13. In addition to their lifetime exposure, Olivia Blymer, Riley Blymer and Anthony Casazza were exposed to the Toxins *in utero*.

IV. The Parties

A. The Plaintiffs

14. Olivia Blymer was born on March 30, 2005.
15. Riley Blymer was born on February 8, 2008.
16. Riley Blymer is a minor and in need of a *guardian ad litem*.
17. From the time of their conceptions and continuing through to the diagnoses of their various diseases, Olivia Blymer and Riley Blymer lived at 100 Timber Boulevard in

⁴ Plaintiffs' do not assert that their injuries were caused by exposure to aqueous film forming foam (AFFF). AFFF are used in fire suppressants, may contain certain PFAS, and have been used to extinguish flammable liquid fires such as fuel fires.

Brooklawn, New Jersey in Camden County.

18. James lived at 100 Timber Boulevard in Brooklawn, New Jersey from about 2003 until 2010.
19. Kellyann lived at 100 Timber Boulevard, Brooklawn, New Jersey from approximately 2003 to present including but not limited to during her pregnancies with Olivia and Riley, during which years, she and James also were exposed to the Toxins.
20. Anthony Casazza was born on March 12, 1988.
21. From the time of his conception and continuing through to 1989, Anthony Casazza lived at 5205 Apple Lane Forest Creek Lane in West Deptford, New Jersey, and his parents also resided at that address prior to his birth.
22. From 1989 until January 2019, Anthony Casazza lived at 307 Eighth Street in West Deptford, New Jersey.
23. From January 2019 until March 2023, Anthony Casazza lived at 314 Heather Drive North in West Deptford, New Jersey.
24. From March 2023 until present Anthony Casazza has lived at 1122 Mercy Street in Philadelphia, Pennsylvania.

B. The Defendants

25. Defendant, Solvay Specialty Polymers, USA, LLC (“Solvay USA”), is a corporation duly organized under the laws of the State of Delaware with its principal place of business located in Houston, Texas.
26. Defendant Solvay Solexis, Inc. (“Solvay Solexis”) is the predecessor of Solvay USA and was a corporation duly organized under the laws of the State of Delaware with its

principal place of business located in Houston, Texas.

27. Defendants, Solvay USA and Solvay Solexis, will collectively be referred hereinafter as “Solvay” in this Complaint.

28. Defendant Virginia Hubert serves as a consultant for Solvay, and formerly worked at Solvay *inter alia* as Vice President of Health, Safety and Environment.

29. Hubert also had direct plant responsibilities at Solvay’s Leonard Lane facility (also known as the West Deptford or Thorofare facility) from approximately the mid-1990s through 2006.

30. Hubert is a resident of New Jersey.

31. Defendant the 3M Company (“3M”) is a corporation organized under the laws of the State of Delaware with its principal place of business located at 3M Center, Saint Paul, Minnesota.

32. Defendant AGC Chemicals America Inc. (“AGC”) is a corporation organized and existing under the laws of the State of Delaware, having a principal place of business located at 5 East Uwchlan Avenue, Suite 201, Exton, Pennsylvania.

33. Defendants, AGC and 3M supplied Toxins including PFAS-containing compounds to Solvay for use at the West Deptford, Thorofare, or Leonard Lane Facility in New Jersey (“Leonard Lane”) to which Plaintiffs were exposed.

V. Jurisdiction and Venue

34. Solvay is subject to personal jurisdiction in this case because, at all times relevant to this litigation, Solvay produced, manufactured, marketed, distributed, utilized, and/or sold Toxins including PFAS or products containing PFAS to customers throughout New Jersey, and emitted Toxins including PFAS or products containing PFAS into the

environment in New Jersey, and Plaintiffs' claims arise from and relate to Solvay's substantial contacts in New Jersey.

35. 3M is subject to personal jurisdiction in this case because, at all times relevant to this litigation, 3M produced, manufactured, marketed, distributed, and/or sold Toxins including PFAS or products containing PFAS to customers throughout New Jersey and Plaintiffs' claims arise from and relate to 3M's substantial contacts in New Jersey.

36. AGC Chemicals America Inc. is subject to personal jurisdiction in this case because, at all times relevant to this litigation, AGC Chemicals America Inc. marketed, distributed, and/or sold Toxins including PFAS or products containing PFAS to customers throughout New Jersey and Plaintiffs' claims arise from and relate to AGC Chemicals America Inc.'s substantial contacts in New Jersey.

37. Virginia Hubert is subject to personal jurisdiction in this case because, from the 1990s until today, she has been and is a citizen and resident of the State of New Jersey.

38. In addition, Hubert had direct plant responsibilities at Solvay's Leonard Lane facility during the 1990s and 2000s when the Toxins including PFAS were being emitted by Solvay including into the air and water, and also served as corporate Director of Regulatory Affairs and Vice President of Health, Safety or Environment at Solvay's Leonard Lane, New Jersey site where Solvay produced, manufactured, marketed, distributed, and/or sold Toxins including PFAS or products containing PFAS to customers throughout New Jersey, and Plaintiffs' claims arise from and relate to substantial contacts in New Jersey.

39. Venue is proper in this Court pursuant to R. 4:3-2 because of the Blymer Plaintiffs reside in and experienced exposure to Toxins in Camden County.

VI. Statement of Facts

40. Plaintiffs Olivia and Riley Blymer and Anthony Casazza have suffered from personal injuries, pain and suffering, emotional distress, disability, and loss of enjoyment of life's pleasures as discussed above.
41. These injuries and KellyAnn and James Blymer's derivative damages were proximately caused by Defendants' misconduct, including their intentional manufacturing, use, discharge, release and/or disposal of Toxins including but not limited to PFAS, to which they, as well as their parents, were exposed.
42. In January 2023, Brooklawn, New Jersey residents were notified by the Brooklawn Water Works Department that its water supply was contaminated.
43. Residents were informed that water samples collected over the past year averaged .014 ppb PFNA, exceeding then-applicable limits.
44. Water testing performed in 2014 of the West Deptford Water Department revealed that its water supply was contaminated with PFNA, with readings indicating 30 ppt, which exceeded maximum containment levels in effect at that time.
45. The sections that follow detail some of the acts and omissions proximately causing the contamination of Plaintiffs' community and the injuries from which they suffer.

Leonard's Lane

46. Solvay purchased and has owned the Leonard's Lane facility since approximately 1990.
47. Surflon® is a commercial mixture of perfluorinated carboxylic acids composed primarily of PFNA (sometimes referred to by the number of Carbons as "C9"), but also containing PFAS with longer and shorter Carbon chains (*e.g.*, C8 [with 8 Carbons], and

C10-20 [with 10 to 20 Carbons]).

48. Solvay used Surflon® S-111, composed of approximately 74 percent PFNA, at the Leonard Lane Facility, to manufacture PVDF.
49. Surflon® was used at the Leonard Lane Facility as a processing aid in the manufacture of PVDF and other products by Solvay from approximately 1990 to 2010.
50. From approximately 1985-1990, Surflon® provided by ACG was similarly used at the site as a processing aid in the manufacture of PVDF and other products.
51. Solvay has reported using 275,730 pounds of Surflon® at the Leonard Lane Facility between 1991 and 2010.
52. Solvay admits that 86.6% of the Surflon® used at the Leonard Lane Facility was released into the environment through emissions to water and air, with 164,408 pounds discharged to water and 73,632 pounds emitted to the atmosphere.
53. Solvay reported that it disposed of approximately 2% of the Surflon® used at the Leonard Lane Facility into unidentified landfills.
54. AGC supplied Surflon® to Solvay for use at this Facility.
55. AGC continued to sell thousands of pounds of Toxins including Surflon® for use at the Leonard Lane facility for decades.
56. As discussed below, for years, 3M also sold Toxins to Solvay including NaPFO.
57. Solvay continued using Surflon® at the Leonard Lane Facility even after AGC ceased production of Surflon® in approximately 2008.
58. According to the New Jersey Department of Environmental Protection (“NJDEP” or “Department”), in 2007, while Solvay was using and discharging Surflon® at the Leonard Lane facility, PFNA was detected in surface water samples collected from the Delaware

River downstream of that facility up to 976 parts per trillion (“ppt”).

59. PFUnDA or perfluoroundecanoic acid or C11, a component of Surflon®, was also detected in these areas.
60. Solvay’s emission of more than 70,000 pounds of Surflon® from air emission stacks at the Leonard Lane Facility contributed to soil contamination miles away from the Leonard Lane Facility.
61. Solvay began polyvinylidene fluoride ("PVDF") production at the Leonard Lane Facility in approximately 1990.
62. Solvay also used sodium perfluorooctanoate (“NaPFO”) as a processing aid in the manufacture of PVDF between approximately 1995 and 2003.
63. 3M supplied NaPFO to Solvay.
64. NaPFO degrades into PFOA (C8).
65. Solvay continued using NaPFO at the Leonard Lane Facility until at least 2003 after 3M halted production of NaPFO.
66. Solvay used at least 23,241 pounds of NaPFO at the Leonard Lane Facility between approximately 1995 and 2003.
67. Solvay reported that approximately 97% of the NaPFO used at the Leonard Lane Facility between 1995 and 2003 was released into the environment through emissions to water and air.
68. This included 20,682 pounds discharged to water and 1,861 pounds emitted to the air.
69. From the 1990’s until at least 2003, Solvay also manufactured polytetrafluoroethylene (“PTFE”) at the Leonard Lane Facility.
70. The manufacture of PTFE used PFOA purchased from 3M and/or AGC.

71. In or about 2003 and thereafter, Solvay used PTFE at the Leonard Lane Facility containing PFOA.
72. NJDEP 2017 testing of surface water samples collected in the Delaware River upstream and downstream from the Leonard Lane Facility, including into the back reaches of tidal tributaries and creeks, revealed the presence of PFNA at concentrations up to 111 ppt in tidal tributaries.
73. Between 2007 and 2009, the Delaware River Basin Commission conducted a multi-year survey of contaminants of emerging concern in the Delaware River.
74. The Delaware River Basin Commission study found PFNA in the Delaware River water up to 976 ppt near the Leonard Lane Facility at a concentration that was higher than had been reported in surface water anywhere else in the United States or worldwide.
75. NJDEP-mandated testing of groundwater revealed PFNA concentrations of up to 14,000 ppt and PFOA concentrations of up to 1,600 ppt.
76. NJDEP stated that the elevated PFNA levels found in the area surrounding the Leonard Lane Facility have not been detected elsewhere in New Jersey.
77. The highest PFNA concentration in New Jersey were found near the Leonard Lane Facility.
78. The PFNA-PFUnDA-PFTrA ratio in Surflon® is distinct, and it is consistent with the ratios of these chemicals found in environmental media in and around the Leonard Lane Facility but not reported elsewhere in New Jersey.
79. Solvay released PFAS including but not limited to PFOA, PFNA, and Surflon® which as noted contains PFAS including C9, C8, and longer Carbon chain (C10+) PFAS from the Leonard Lane Facility into the air, water, and soil proximately causing harm to

Plaintiffs Anthony Casazza and Plaintiffs Olivia and Riley Blymer and their family.

80. Defendant Virginia Hubert, a resident of New Jersey, served *inter alia* as Solvay's Vice President of Health, Safety and Environment.

81. Hubert was employed by Solvay from approximately 1993 to 2020 and later worked as a consultant to Solvay.

82. Hubert's responsibilities included but were not limited to oversight of health and safety issues at the Leonard Lane site from the mid-1990s into the 2000s and serving as Solvay's Vice President of Health Safety and Environment and Head of Regulatory Affairs.

83. Hubert's responsibilities at Solvay beginning in the 1990s included reporting information relating to the use or proposed use of toxic substances to governmental and regulatory agencies including the EPA and the NJDEP relating to PFAS.

84. Hubert knew that Solvay was discharging Toxins including but not limited to PFAS-containing Surflon® and NAPFO, into the soil, air, and water surrounding the Leonard Lane site, including the Delaware River.

85. Solvay, during Hubert's tenure, was involved for years in suppressing internal scientific findings on health risks of Toxins including PFAS.

86. Documents Solvay provided to the EPA in 2019, but that it did not contemporaneously share with the NJDEP, show that Solvay had been testing workers' blood since at least 2011 (i.e., approximately 8 years earlier), and that Solvay knew that chloroperfluoropolyether carboxylate compounds bioaccumulated. Solvay's European affiliate companies, which also utilized PFAS, also conducted blood screening of workers in the early 2000s, and confirmed that workers had elevated PFOA levels in their blood.

In light of the positions of responsibility Hubert held at Solvay during that period, she knew or should have known about the blood PFAS levels of occupationally exposed workers. According to press reports, based on an investigation of the Environmental Working Group, Solvay knew in 2011 that PFAS chemicals accumulate in human blood but did not disclose that to the EPA until 2019.

87. Hubert, as Vice President for Health & Safety & Environment, knew or should have known that during her tenure there, that Solvay was engaged in an effort to prevent information concerning PFAS including elevated blood PFAS levels from being published, although it would be of scientific, medical and regulatory importance to government, other companies, customers, community residents, and others who might experience exposures to PFAS. According to a January 26, 2021 letter from the Environmental Working Group to the USEPA, Solvay withheld information from the EPA about substantial risks from PFAS for years. According to that letter, “Solvay was aware for more than six years of the substantial risk to human health and the environment that its replacement PFAS compounds posed before it submitted that information to the EPA.”” According to Consumer Reports, internal Solvay documents reveal that the company has known of potentially severe health risks for at least 15 years.

88. Despite knowing about elevated PFAS in workers’ blood in the United States and abroad, during Hubert’s tenure at Solvay, Solvay delayed reporting data about PFAS-related toxicity to the EPA for years, until after claiming to phase out of the process chemicals.

89. Solvay, as discussed below, during Hubert’s tenure at Solvay, withheld toxicity data on alternative PFAS chemical use until approximately 2021.

90. At all relevant times, Hubert and Solvay had access to research and scientific and medical personnel with knowledge and expertise far exceeding that possessed by the general public and Plaintiffs, respecting the adverse health effects of the Toxins including PFAS.
91. These personnel included toxicology personnel at a Solvay European affiliate, which used PFAS including PFOA for decades, and which by at least the 1990s, was participating in trade group meetings with scientists from companies including 3M, addressing the toxicity of PFAS chemicals.
92. By the 1990s, Hubert and Solvay knew or should have known about scientific research documenting the presence of organo fluorides in human blood.
93. Hubert knew or should have known that toxicologists working at Solvay's European affiliates were active members in trade groups with other PFAS consumers and manufacturers like 3M, who were studying PFAS' adverse health effects.
94. Hubert knew or should have known that Solvay had been asked in the 1990s to join other trade group members in conducting PFAS-related scientific research, and that Solvay had objected to the cost of proposed research.
95. Rather than promptly disclosing the adverse health effects of Toxins including PFAS and investigating its own contamination, for years during Hubert's time working there, Solvay withheld from the public research Solvay was conducting internally about the Toxins including PFAS.
96. As NJDEP began to learn of widespread PFNA pollution at Solvay's, Leonard Lane plant, Solvay argued that Solvay was not responsible for some or all of the contamination, in order to delay or avoid clean-up responsibilities.

97. During Hubert's tenure at Solvay, while it was using Surflon, Solvay also failed to conduct thorough soil and environmental testing. Solvay and Hubert knew or should have known that had they conducted thorough environmental testing which revealed PFAS-contaminated soil and water, that could have obligated duties to report findings to regulators.

98. At all relevant times, Hubert had or should have had knowledge respecting the safe handling of the Toxins including PFAS and respecting adverse effects including blood abnormalities, benign tumors, diarrhea, gastrointestinal distress, and bioaccumulation of PFAS.

99. At all relevant times, Solvay and Hubert also knew or should have known that fluoropolymers should not be discharged into waterways, lakes, or streams.

100. During Hubert's tenure at Solvay, Hubert and Solvay knew or should have known that other companies were facing liability and experiencing negative publicity about PFAS-related contamination, and knew or should have known that Solvay could face similar consequences if the public learned of its contamination of the air, water, and soil surrounding the Leonard Lane facility with the Toxins.

101. For years, during Hubert's tenure at Solvay, and during which time Plaintiffs were being exposed to the Toxins including PFAS, Solvay endeavored to avoid, delay, and limit public awareness of the nature and extent of the contamination of the Leonard Lane site and surrounding areas. Solvay, at various times, sought to argue to the NJDEP that others were responsible for PFNA contamination near its facility.

Suppliers of Toxins

102. The United States Environmental Protection Agency (“EPA”) has identified 3M as the dominant global producer of PFOA and related chemicals.
103. 3M manufactures and/or manufactured at least eighty-five (85%) percent of total worldwide volumes of PFOA and related chemicals prior to 1991.
104. 3M delivered a variety of PFAS chemicals, including PFNA, to the Leonard Lane Facility.
105. AGC claims that it is a leading producer of fluorochemical compounds in the world.
106. AGC delivered a variety of Toxins, including PFOA-, PFNA- and PFUnDA-containing Surflon, which also contained higher chain PFAS (C10+), to the Leonard Lane Facility.
107. At all relevant times ACG knew or should have known that the Surflon® it was supplying for use in the Leonard Lane facility posed serious health risks to the surrounding community.
108. At all relevant times 3M knew or should have known that the Toxins including NaPFO it was supplying for use in the Leonard Lane facility posed serious health risks to the surrounding community.
109. ACG knew by 1984 if not earlier that Surflon® was very toxic, that other companies manufacturing and/or utilizing PFAS and had contemplated teratological testing of them, and that Surflon® had a low LD50, such that ingesting between one teaspoon and one ounce would probably kill 50% of 150-pound persons.
110. ACG and the other Defendants also knew or should have known at all relevant times that clinically significant illness is expected after exposures far lower than the

probable lethal dose for a chemical or mixture, that some members of a population are far more vulnerable than others to the Toxins and will become ill or die at lower doses, that pregnant women, children, and developing fetuses are particularly vulnerable to the Toxins, and that the Toxins including but not limited to Surflon® and NAPFO that were being utilized by Solvay were being emitted into the environment including the air, water, and soil in a way that would harm the surrounding communities.

111. Anthony Casazza, as well as Olivia Blymer, Riley Blymer, Kellyann Blymer and James Blymer were exposed to Toxins including PFAS, which were supplied to the Leonard Lane Facility by 3M and AGC.

The Toxins Persist in the Environment and the Human Body

112. The Toxins are man-made chemical compounds.

113. They are a substantial threat to the environment and human health, are persistent, toxic, and mobile in soil and groundwater.

114. Once the Toxins are released onto land or into the air, soil, sediments, or water, they migrate through the environment and into groundwater and surface water.

115. The Toxins are soluble and spread through water and do not easily adsorb (stick) to soil particles.

116. They are readily transported through the air as well as the soil and into groundwater where they can migrate vertically and horizontally.

117. Once released into the environment, they will endure indefinitely until they are consumed by living organisms or are contained and removed.

118. The Toxins do not break down or biodegrade in the environment or in living

organisms for many years.

119. They bioaccumulate in humans and in wildlife and are purged from individual organisms very slowly.

120. The Toxins can biomagnify, meaning that their concentration in organic tissue increases as they are consumed up the food chain.

Routes of Exposure

121. Plaintiffs were exposed to the Toxins by routes including ingestion, inhalation, skin absorption, *in utero* exposures, and the consumption of local produce containing these compounds.

Federal Initiatives Respecting PFAS

122. Federal government agencies, including the Center for Disease Control's Agency for Toxic Substances and Disease Registry ("ATSDR"), have concluded that there are adverse human health effects associated with exposure to the Toxins including PFAS, including but not limited to kidney and testicular cancer; liver damage or changes in liver function; delayed growth and development (including decreased infant birth weight); decreased vaccine response; and increased cholesterol.

123. In 2009, the EPA issued preliminary health advisory values for PFOA and PFOS in drinking water of 400 parts per trillion ("ppt") and 200 ppt, respectively.

124. In 2016, the EPA lowered its health advisory values for PFOA and PFOS to 70 ppt.

125. In 2018 the ATSDR released draft minimum risk levels (the amount of a chemical

a person can eat, drink, and breathe each day without a detectable health risk) of 21 ppt for PFOA and PFNA, and 14 ppt for PFOS.

126. On April 9, 2024, the EPA set Maximum Contaminant Levels (“MCLs”) at 4.0 ppt for PFOA and PFOS, individually.

127. On April 9, 2024, the EPA set a Maximum Contaminant Level Goal (MCLG) health-based goal for PFOA and PFOS of zero.

State of New Jersey Initiatives and Litigation

128. The NJDEP has recognized that PFAS “can cross the placenta and reach the developing fetus. When drinking water is contaminated, PFAS exposures to infants from prepared formula and especially through breast milk are much higher than in adults. These higher exposures are of concern because the fetus and infant are sensitive to the developmental effects of PFAS.”

129. NJDEP also has recognized that PFAS including PFOA, PFOS and PFNA cause adverse health effects.

130. The New Jersey Drinking Water Quality Institute Health Effects Subcommittee has concluded that PFOA, PFOS and PFNA cause adverse health effects.

131. The NJDEP has adopted a specific Groundwater Quality Standard (“GWQS”) of 10 ppt for PFNA and a Maximum Contaminant Level (“MCL”) of 13 ppt.

132. On January 16, 2018, the NJDEP added PFNA to its List of Hazardous Substances.

133. On March 13, 2019, the NJDEP established interim specific groundwater quality criteria for PFOA and PFOS of 10 ppt.

134. In 2017, NJDEP and the USEPA Office of Research and Development (ORD) also

began a collaborative investigation of PFAS in the environment in the area of Southwestern New Jersey where PFNA was detected.

135. Using non-targeted analysis, multiple congeners of chloroperfluoropolyether carboxylates (“CIPFPECAs”) were tentatively identified in soil, surface water, and groundwater including private wells.

136. These congeners contain between 7 and 15 carbons and are not short chain PFAS.

137. CIPFPECAs were later detected in other media in this vicinity including vegetation and fish.

138. These compounds’ identification as CIPFPECAs was supported by Solvay Specialty Polymers Italy’s having submitted information on CIPFPECAs with the same structure to the European Food Safety Authority (EFSA) for approval for use in processing of fluoropolymers used in food contact materials.

139. Based on that information, the chemical structure and CAS RN were identified by researchers as “Solvay’s product.”

140. Further, five of the nine CIPFPECA congeners detected in New Jersey soil also were detected by USEPA ORD in water samples from a river downstream of a Solvay Specialty Polymers fluoropolymer manufacturing facility in Italy.

141. On March 25, 2019, the NJDEP issued a now publicly available Statewide PFAS Directive, Information Request and Notice to Insurers (the “Directive”) to several chemical manufacturers, among them Defendant The 3M Company:

to notify them that the Department believes them to be responsible for the significant contamination of New Jersey’s natural resources, including the air and waters of the State, with poly- and perfluoroalkyl substances (“PFAS”)

142. In that Directive, the NJDEP also declared that 3M put their profits above the public

health, safety, and the environment of New Jersey.

143. The NJDEP's 2019 Directive also required Solvay, among other things, to provide the Department with information regarding additional PFAS compounds, which it was using in its manufacturing operations to replace legacy PFAS chemicals.

144. In response, Solvay disclosed to the Department that it has emitted and discharged additional PFAS compounds at the site to New Jersey's air and water for years.

145. Solvay had begun using such replacement PFAS compounds before it stopped using either PFNA or PFOA.

146. Solvay continued to use, emit, and discharge those compounds at the Leonard Lane/West Deptford facility up to and including at least 2020.

147. Solvay took the position that the specific chemical identities of its replacement PFAS compounds that it used, emitted, and discharged at the site, as well as emissions information, Safety Data Sheets, and toxicology and toxicokinetic studies describing the health and environmental risks they pose, were confidential, trade secret, and proprietary.

148. In so doing, Solvay effectively barred the NJDEP from disclosing information to the public and the medical and scientific community about its replacement chemicals.

149. Solvay eventually provided NJDEP with estimated annual amounts of these PFAS used and released into the air and water from approximately 1996-2018.

150. More than 1,000 kg of these PFAS were released annually between 2002 and 2018.

151. Solvay estimated releases of >10,000 kg of these PFAS in multiple years, and release of large amounts in some years before 2010 when long-chain PFAS were still being used.

152. As Solvay had recognized that it would need to cease using of NaPFO and Surflon,

as scientists and regulators were beginning to ask questions about their toxicity, Solvay began ramping up usage of alternative or replacement compounds, while concealing internal studies showing that the alternative chemicals exhibited significant toxicity.

153. Solvay also failed to provide the Department with publicly available technical grade analytical standards which would enable laboratory instruments to quantify these alternative compounds in environmental samples.

154. According to a 2020 article entitled “Nontargeted mass spectral detection of chloroperfluoropolyether carboxylates in New Jersey Soils,” some of the “replacement” PFAS compounds that Solvay likely used at the site are chloroperfluoropolyether carboxylates (“CIPFPECAs”).

155. Like PFNA and PFOA, CIPFPECAs have been identified in the environment including in Gloucester and Salem counties.

156. In 2020, EPA reported to the Department that it had detected CIPFPECAs in water samples collected from private potable wells near the site.

157. Upon information and belief, CIPFPECAs pose risks to public health and the environment similar to those posed by PFOA and PFNA.

158. The NJDEP has stated that CIPFPECAs are associated with numerous health endpoints in occupationally exposed workers, including increased serum lipids and liver enzymes, decreased immunoglobulins, changes in endocrine parameters, and others. See <https://www.nj.gov/dep/wms/bears/docs/CIPFPECAs-factsheet2021Final.pdf> (last visited May 7, 2025).

159. The NJDEP also has stated that “CIPFPECAs were detected in private wells in the vicinity of Solvay’s West Deptford facility, and levels in some of these wells are estimated

to be several hundred parts per trillion (ng/L). CIPFPECAs have been detected in soil, vegetation and sediment (unpublished data from NJDEP/EPA study) in Solvay's vicinity. They have also been discharged to air and to water." *Id.* (citations omitted).

160. NJDEP further wrote that "[d]irect and/or indirect potential human exposure is possible from all these media" and that "[t]he most sensitive toxicological effects (i.e., effects that occurred at the lowest dose) in the available toxicology studies were observed in male rats in a 13-week study of a mixture of CIPFPECA congeners of different chain lengths (RTC, 2016). Increased relative liver weight, decreases in red blood cell parameters, and hepatocellular micro- and macrovesicular vacuolation likely due to steatosis were identified as endpoints that are sensitive, adverse or precursor to adverse, and relevant to humans" *Id.* (citations omitted).

161. In addition to CIPFPECAs, Solvay utilized and released into the air, water, and environment another alternative PFAS, perfluoropolyether dicarboxylates (PFPE-DCAs), both before and after its use of Surflon ended.

162. CIPFPECAs and PFPE-DCAs are at least as bio-accumulative and toxic in rats as long-chain perfluoroalkyl acids (PFAAs).⁵

163. CIPFPECAs and PFPE-DCAs are at least as bioaccumulative and toxic as PFOA and PFNA.

164. After issuing a Statewide Directive to companies including Solvay and 3M, ordering them to address their contribution to the injury of numerous environmentally sensitive natural resources including regional potable groundwater resources, the companies failed to fully comply with the NJDEP's orders and litigation followed.

⁵ Long-chain PFAAs are perfluorocarboxylates with at least 8 Carbons and perfluorosulfanoates with at least 6 Carbons. PFOA, PFOS, PFNA, and PFHxS are long-chain PFAAS.

165. In November 2020, the DEP sued companies including Solvay in State Court, seeking to compel more swift and immediate action to clean up the contamination at and around the site, including addressing impacts to drinking water, reimbursing the State for the costs of work that the NJDEP had already undertaken, and paying damages to the State to compensate the public for the injuries to natural resources caused by the facility's operations.

166. The NJDEP has alleged that in addition to emitting Surflon, containing PFNA and PFOA "forever chemicals" that are highly mobile, bioaccumulate, and persist indefinitely in the environment unless remediated, the Leonard Lane facility also discharged other PFAS, including monofunctional surfactants (MFS) and bifunctional surfactants (BFS), both also known as replacement compounds, in addition to other contaminants, including semi-volatile organic compounds (SVOCs), volatile organic compounds (VOCs), metals, and polychlorinated biphenyls (PCBs). *See Exhibit A* hereto (NJDEP Complaint).

167. Such discharges on information and belief also contaminated Plaintiffs' environment and substantially contributed to and/or exacerbated Plaintiffs' illnesses and condition.

168. Solvay provided information to USEPA ORD indicating that CIPFPECA products used in New Jersey contain six congeners with 8 to 17 Carbon atoms, the PFPE-DCAs products typically contain nine congeners with 9 to 12 Carbon atoms, and that there are no CAS RNs for the individual congeners.

169. CIPFPECA congeners in addition to the six acknowledged in product information from Solvay were detected in environmental media near the facility.

170. Only after Solvay ceased use of alternative PFAS in its West Deptford or Leonard

Lane facility in approximately 2021, did it make public information previously deemed confidential on its alternative PFAS including CAS RNs, Chemical forms, annual use and discharge and toxicology studies, albeit with some redactions.

171. Third party validated analytical reference standards for the six CIPFPECA congeners stated to present in Solvay's products were eventually made commercially available by Solvay but are not available for PFPE-DCAs.

172. In sampling performed by Solvay at the Leonard Lane or West Deptford site, PFPE-DCAs and CIPFPECAs were detected in the soil and groundwater onsite and in surrounding areas, with CIPFPECAs at up to 670,000 ng/L and PFPE-DCAs at up to 156,000 ng/L reported in onsite monitoring wells.

173. NJDEP became aware of the existence of mammalian toxicology studies of the alternative PFAS from Safety Data Sheets Solvay provided many years after their usage began, in response to a 2019 legal directive.

174. Safety Dara Sheets state that repeated dose exposure to these PFAS caused specific target organ toxicity in the liver in oral rat studies with No Observed Effect Levels of <.3mg/kg/day in a 4-week study of CIPFPECAs, and .5mg/kg/day in a 4-week study and .3mg/kg/day in a 13-week study of PFPE-DCAs.

175. The toxicology studies reporting such data were not initially submitted by Solvay to NJDEP. Instead, Solvay provided NJDEP with numerous unpublished industry-sponsored contract laboratory studies of mammalian acute and repeated dose toxicology bacterial mutagenicity, and ecological toxicity for both types of alternative PFAS only after NJDEP made a follow-up request for all toxicology data on these PFAS.

176. Even then, Solvay failed to make these studies public until its use of the alternative

PFAS ended, and even then, it redacted trade names, and in a fashion that lay people such as the Plaintiffs could not comprehend.

177. Despite obtaining submitting including studies of workers with occupational exposures to CIPFPECAs including blood serum levels, elimination half-life, and associations with multiple health endpoints, Solvay did not promptly provide that information to NJDEP, or inform the NJDEP of its existence.

178. Additional materials that Solvay did not promptly provide to NJDEP included four toxicology studies for PFPE-DCAs which included an acute rat oral toxicity study and three genotoxicity studies.

179. Furthermore, Solvay did not contemporaneously share with NJDEP research by scientists from Solvay S.A. in Belgium and France, reporting a non-regulatory corporate occupational exposure limit of 0.0035 mg/m³ in air for CIPFPECAs based on “effects on liver (and lungs at higher dose levels)” in rats.

180. This air concentration is 14 to 6,200 times below Solvay S.A.’s occupational exposure limits for the seven other chemicals included in the publication.

181. Solvay advised the EPA that CIPFPECAs have an estimated human half-life of 2.5-3 years based on biomonitoring data from exposed Solvay workers.

182. The later publication of this study concluded that the half-life of CIPFPECAs in these workers was similar to PFOA’s, 3.16 years.

183. Solvay’s communication to the EPA in 2019 also reported statistical associations of an unusually large number of health endpoints with serum CIPFPECAs in exposed workers.

184. Many of the health effects associated with CIPFPECAs in workers were consistent

with effects of ClPFPECA in rats and with effects of other PFAS in laboratory animals and humans.

185. An unpublished study submitted by Solvay to the NJDEP in 2019 indicates that the half-lives of ClPFPECA congeners in rats are comparable to those of PFNA and PFOA.

186. In eight unpublished acute oral studies of ClPFPECA dated 1996-2003 submitted by Solvay to NJDEP in 2019, the oral lethal doses to 50% of animals (LD50s) for ClPFPECA in rats were 39-120 mg/kg.

187. LD50s for ClPFPECA appear to be 5 to 50-fold lower than for PFOA, and 20- to 60-fold lower than for GenX, indicating that ClPFPECA are much more acutely toxic in rats than other PFAS.

188. In approximately 2019, Solvay provided unpublished repeated dose studies of ClPFPECA in rats (dated between 2006 and 2016).

189. In those studies, hepatic toxicity was the most sensitive and consistent toxicological effect, occurring at doses as low as 0.05mg/kg/day in the 13-week study.

190. Hepatic toxicity is an established and sensitive effect of PFAS generally.

191. ClPFPECA also are associated with increased serum liver enzymes in human beings.

192. Toxicological studies reflect that ClPFPECA are equally or more potent than PFOA and PFNA for hepatic toxicity.

193. Other toxicological effects of ClPFPECA in the repeated dose studies included changes in relative weights and histopathological effects in multiple organs in addition to the liver, effects on serum lipids, and other clinical chemistry endpoints, and decreases in red blood cell parameters.

194. In approximately 2019, Solvay also submitted to NJDEP two unpublished studies (dated 2005 and 2006) on the half-life of PFPE-DCAs in rats, reflecting that the half-lives of PFPE-DCAs were comparable to those of PFOA and PFNA.
195. Unpublished repeated dose oral studies of PFPE-DCA congener mixtures (dated 2005 and 2006) also were submitted by Solvay to NJDEP in approximately 2019.
196. Hepatic toxicity was a sensitive effect in these studies, like other PFAS, and occurred at doses as low as .13mg/kg/day in a 13-week study.
197. Further effects in one or both studies included increased relative kidney weight, histopathological changes in the lung, increased serum triglycerides, and other clinical chemistry changes, and decreases in RBC parameters.
198. Even after industry-sponsored studies demonstrated that these alternative PFAS are at least as bio-accumulative and toxic as the phased out long-chain PFAAs, Solvay continued to utilize, emit, and discharge large volumes of ClPFPECAAs and PFPE-DCAs into the surrounding community, while withholding research from government entities such as NJDEP and the general public that could have been used to warn and protect Plaintiffs.
199. Following years of litigation by the NJDEP, a nearly \$394 million settlement was reached, made effective through a Judicial Consent Order (JCO) entered on or about March 6, 2024, requiring Solvay to remediate its pollution and take steps to restore the environment and impacted resources.
200. New Jersey's Attorney General and NJDEP Commissioner also recently announced a settlement of up to \$450 million with 3M to resolve the State's lawsuits and a Statewide Directive to address damage to the State's water and other natural resources from

dangerous PFAS chemicals.

Defendants Were or Should Have Been Aware of the Dangerous Nature of the Toxins

201. Defendants other than Hubert were or should have been aware of the harmful effects of the Toxins to humans and the environment since at least the 1960's.

202. Hubert was or should have been aware of the harmful effects of the Toxins to humans and the environment since at least the early 1990s when she began working at Solvay.

203. In the 1960's, animal toxicity testing performed by Defendants manufacturing and/or using PFAS indicated that exposure to PFAS resulted in various adverse health effects among multiple species of laboratory animals.

204. Attached hereto as **Exhibit B** is a copy of the testimony of Lori Swanson, former Attorney General of the State of Minnesota, before the Committee on Oversight and Reform, Subcommittee on Environment, United States House of Representatives (September 10, 2019).

205. This testimony spells out in some detail, some of 3M's misconduct, and information that was known by or should have been known by these sophisticated Defendants at all relevant times.

206. For instance, by 1969, 3M scientists recognized that PFAS, is biopersistent, bioaccumulative and toxic.

207. In the 1960's, an internal 3M memorandum noted that 3M's PFAS compounds "[would] eventually reach the water table and pollute domestic wells."

208. In the 1960's, 3M undertook studies which revealed that PFAS was a hazardous

chemical.

209. In the 1960's, 3M communicated its findings about the hazardous nature of PFAS to at least one other chemical manufacturing company in New Jersey but took no steps to protect communities in New Jersey where it knew PFAS were being utilized and discharged into the environment.

210. Between the 1960's, when 3M communicated with at least one other chemical manufacturing company in New Jersey, and 2024, 3M provided no notice to Plaintiffs of the adverse health effects that were reported to result from PFAS exposures.

211. In the 1970's, additional research and testing performed by Defendant 3M indicated that PFOA, PFOS, and PFHxS, would bind to proteins in the blood of animals and humans, and remain and/or persist in the body for long periods of time.

212. By 1979, it was also known or knowable to Defendants including but not limited to 3M that PFAS compounds accumulate in the blood of exposed organisms, including humans, with each additional exposure, no matter how small.

213. By 1979, Defendant 3M knew that PFOA and PFOS and other Toxins were harmful to people and the environment based on its own studies and review of relevant scientific and medical literature.

214. In the late 1970's, Defendant 3M became aware that PFOA will bioaccumulate in humans.

215. In the late 1970's, 3M became aware that non-occupationally exposed populations residing near 3M manufacturing facilities had PFAS in their blood.

216. Notwithstanding this knowledge, 3M took no steps to protect those who were not occupationally exposed and failed to instruct Plaintiffs to take steps to protect themselves.

217. Nor did the other Defendants.

218. By the 1980's, Defendants 3M and AGC knew, or reasonably should have known, that PFOA and PFOS were reproductively toxic, developmentally toxic, and carcinogenic. Solvay knew or should have known the same information when it began operations at the Leonard Lane facility by 1990, and Hubert knew or should have known the same information from the early 1990s when she began working at Solvay.

219. By the 1980's, Defendants 3M and AGC knew, or reasonably should have known that when fluorochemical products are released into the environment, that the PFAS component will migrate through the subsurface, mix with groundwater, resist natural degradation, and render drinking water unsafe. Solvay knew or should have known the same information when it began operations at the Leonard Lane facility by 1990, and Hubert knew or should have known the same information from the early 1990s when she began working at Solvay.

220. By the 1980's, Defendants also knew or reasonably should have known that PFOA, PFHxS and PFOS could be absorbed into the lungs and gastrointestinal tract, potentially causing damage to the liver, kidneys, and central nervous system, in addition to other toxic effects, and that PFOA and PFOS are carcinogens which can contribute to genetic damage. Solvay knew or should have known the same information when it began operations at the Leonard Lane facility by 1990, and Hubert knew or should have known the same information from the early 1990s when she began working at Solvay.

221. By the early 1980's, Defendants knew or should have known that there was a correlation between PFAS exposure and human health effects. Specifically, manufacturers observed bioaccumulation of PFAS in workers' bodies and birth defects in children of

workers. Solvay knew or should have known the same information when it began operations at the Leonard Lane facility by 1990, and Hubert knew or should have known the same information from the early 1990s when she began working at Solvay.

222. By the 1980's, Defendants manufacturing and/or using PFAS were aware that PFAS, including PFOA and PFOS, had been detected not only in the blood of workers at PFAS manufacturing facilities, but also in the blood of those who were not exposed in a non-occupational setting. Solvay knew or should have known the same information when it began operations at the Leonard Lane facility by 1990, and Hubert knew or should have known the same information from the early 1990s when she began working at Solvay.

223. By the 1980s, Defendants knew or should have known that PFAS with longer Carbon chains (*e.g.*, Surflon, which is predominantly C9+) generally pose a greater risk of adverse health effects than PFAS with shorter Carbon chains. Solvay knew or should have known the same information when it began operations at the Leonard Lane facility by 1990, and Hubert knew or should have known the same information from the early 1990s when she began working at Solvay.

224. By the late 1980's, Defendants understood that, not only did PFAS persist and accumulate in the human body, including in human blood, but also that once PFAS is in the human body, it has a long half-life, meaning it would take years before even half of the material would be eliminated, assuming there were no additional exposures. Solvay knew or should have known the same information when it began operations at the Leonard Lane facility by 1990, and Hubert knew or should have known the same information from the early 1990s when she began working at Solvay.

225. It was understood by Defendants at all relevant times that a chemical that caused

cancer in animal studies presents an unacceptable cancer risk to humans, unless the precise mechanism of action by which the tumors were caused was known not to be operative and/or not to occur in humans.

226. In the 1980's 3M learned that waste sites where it deposited PFAS were leaching PFAS into the groundwater and agreed to purchase homes near the Oakdale, Minnesota waste disposal site where 3M had deposited PFAS wastes.

227. At all relevant times AGC, Solvay, and Hubert knew or should have known the same information about PFAS as 3M, as they were sophisticated companies and a sophisticated and scientifically trained high-level corporate employee, with access to medical and scientific personnel who had expertise respecting the Toxins.

228. Further, at all relevant times, Defendants belonged to trade groups whose members possessed superior knowledge about the harms posed by the Toxins and PFAS relative to what was known by the general public and scientific and medical communities.

229. Once governmental entities and regulators began to focus on the toxicity, persistence and bioaccumulation of the Toxins including PFAS, Defendants individually and collectively attempted to delay or prevent regulation, litigation, and/or the discontinuation of the use of PFAS chemicals through lobbying, misleading and inaccurate assurances to the public, concealing and suppressing the disclosure of scientific research, and sponsoring and promoting industry-friendly research designed to manufacture doubt about the toxic effects of the Toxins.

230. Despite concerns expressed within 3M and by regulatory agencies, 3M continued to encourage and promote the use of fluorochemical products in a manner that was likely to pollute the environment.

231. In the 1990s, 3M became aware that a chemical manufacturing company's facility in West Virginia was causing drinking water contamination with PFAS.

232. After 2000, 3M continued to promote a narrative that PFAS and related chemicals, including PFOA and PFOS, are safe and pose no risk to humans despite internal knowledge to the contrary.

233. Defendants were aware of, closely monitored, and discussed litigation respecting PFAS litigation beginning in the 1990s, and paid scientists, lobbyists, physicians, and communications and public relations professionals to downplay, deny, drown out, manufacture doubt about, and question evidence respecting the harm that their products, process chemicals, and activities, had caused and were continuing to cause communities such as those where the Plaintiffs lived.

234. By at least 2010, additional research and testing performed by Defendants manufacturing and/or using PFAS, including 3M, revealed multiple potential adverse health impacts among workers exposed to such PFAS, including PFOA, such as increased cancer incidence, hormone changes, lipid changes and thyroid and liver impacts, which Defendants' own scientists, lawyers and advisors recommended be studied further to assess the extent to which PFAS exposures were causing those effects.

235. The "C8 Science Panel" created as part of the settlement of a PFAS class action in connection with PFAS releases from a manufacturing site in West Virginia reviewed the available scientific evidence and concluded that a "probable link" exists between PFOA exposure and the serious (and potentially fatal) conditions of pregnancy-induced hypertension and preeclampsia.

236. By October 2012, the C8 Science Panel concluded that a probable link also exists

between PFOA and five other conditions—high cholesterol, kidney cancer, thyroid disease, testicular cancer, and ulcerative colitis.

237. Research since then has continued to reinforce the adverse health effects associated with exposure to PFOA and other PFAS, including but not limited to cancers, birth defects, genetic damage, endocrine disruption, immunosuppression, genetic damage, and adverse reproductive endpoints.

Defendants Acted with Wanton Disregard for Public Health

238. At all relevant times, Defendants knew of severe and adverse health and environmental effects and impacts of the Toxins.

239. Despite that knowledge, Defendant Solvay and Hubert continued to use and PFAS and other Toxins in products and release them into the environment, and 3M and AGH continued to sell large quantities of Toxins including PFAS to Solvay although they knew or should have known that such sales would result in PFAS and the other Toxins being released into the environment.

240. For decades, Defendants failed to warn Plaintiffs and the communities into which Defendants discharged Toxins including PFAS of their dangers.

241. Defendants' failure to timely and comprehensively warn Plaintiffs and the communities into which Defendants discharged Toxins including PFAS of the dangers of exposures thereto deprived them of the ability to take steps to protect themselves including seeking alternative water sources or filtration systems or moving elsewhere.

242. Defendants committed acts and omissions with respect to the Toxins including PFAS with actual malice and/or with a wanton and willful disregard of people who foreseeably might be harmed by those acts or omissions.

243. Defendants knew or should have known or foresaw or should have foreseen that allowing the Toxins including PFAS to contaminate the blood and/or body of Plaintiffs would cause injury, irreparable harm, and unacceptable risk of such injury and/or harm to Plaintiff.

244. Defendants' misconduct, jointly and severally, and the resulting wrongful exposures, proximately caused Plaintiffs' injuries and damages as described above. As a consequence, each Defendant is individually and jointly and severally liable to Plaintiff for both compensatory and punitive damages.

245. At all relevant times, Defendants knew that the Toxins including PFAS had the capacity to and foreseeably would leach into groundwater and contaminate the environment.

246. Defendants actively sought to suppress scientific research on the hazards associated with the Toxins including PFAS.

247. Defendants intentionally sought to control the scientific dialogue on the exposure, analytical fate, effects, human health, and environmental risks of the Toxins including PFAS.

248. At least one scientist funded by 3M reported his goal as "keep[ing] 'bad' papers [regarding PFAS] out of the literature" because "in litigation situations" those articles "can be a large obstacle to refute."

249. From studies of their own workers, Defendants 3M knew that the Toxins including PFAS were toxic to people.

250. All Defendants, including but not limited to 3M and AGC, knew that the Toxins including PFAS were being discharged into the environment.

251. 3M and AGC knew or should have known that the Toxins including PFAS were being discharged into the environment even after they ceased selling those products.

252. Defendants failed to disclose the risks of exposure of the Toxins including PFAS to regulators, the public, or the Plaintiffs or their families.

253. After the EPA began requesting 3M to stop manufacturing and/or using PFAS, 3M began manufacturing and/or using other PFAS chemicals with six or fewer carbons, including but not limited to GenX, sometimes known as “short chain PFAS.”

254. Additional research and testing performed by and/or on behalf of Defendant 3M, making and/or using short chain PFAS (namely PFHxS, PFBS, and HPFO) indicates that such short chain PFAS chemicals can present similar and/or additional risks to human health as had been found in research on other PFAS chemicals, including increased cancer risk.

255. Despite this information, 3M repeatedly reassured and represented to governmental entities and the public that the presence of PFAS, including these short chain PFAS, in human blood at the levels found within the United States presents no risk of harm and is of no legal, toxicological or medical significance of any kind.

256. Notwithstanding its knowledge as to the various risks associated with PFAS exposure, 3M continued to recklessly and carelessly design, manufacture, market, distribute, and/or sell fluorochemicals.

257. 3M’s and AGC’s conduct was performed with greed and in callous disregard of the public health as well as Plaintiffs’ health and well-being, in order to maximize profit, avoid necessary expense, to promote sales of their products and to reduce or eliminate Defendants’ obligations to otherwise remediate or prevent the discharge of PFAS into the

environment.

258. At all relevant times, Defendants, through their acts and/or omissions, minimized, trivialized, manipulated and/or otherwise influenced the information that was published including in peer-reviewed journals as well as studies released by governmental entities and/or otherwise made available to the public relating to the Toxins including PFAS in human blood and any alleged adverse impacts and/or risks associated therewith, effectively preventing Plaintiffs and regulatory bodies from discovering the existence and extent of any injuries/harm as alleged herein.

259. NJDEP also declared that the 3M Company put their profits above the public health, safety, and the environment of New Jersey.

260. Defendants committed acts and omissions with respect to the Toxins including PFAS with actual malice and/or with a wanton and willful disregard of people who foreseeably might be harmed by those acts or omissions.

261. At all relevant times, Defendants, through their actions and/or omissions, took steps to attack, challenge, discredit, and/or otherwise undermine any scientific findings of potential adverse health effects or risks, and/or any other fact of legal, toxicological, or medical significance associated with the Toxins including PFAS.

262. By asserting that its research information is confidential, Defendants prevented the NJDEP from disclosing information to the public of the dangers of the Toxins including PFAS.

263. At all relevant times, Defendants through actions and/or omissions, took steps to attack, challenge, discredit, and/or otherwise undermine any scientific findings of potential adverse health effects or risks, and/or any other fact of legal, toxicological, or

medical significance associated with the dangers of the Toxins including PFAS.

264. Defendants' conduct was performed with greed and in callous disregard of the public health as well as Plaintiffs' health and well-being, in order to maximize profit, avoid necessary expense, to promote sales of their products and to reduce or eliminate their obligations to otherwise remediate or prevent the discharge of the Toxins including PFAS into the environment.

VII. Claims for Relief

Count I: Negligence (N.J.S.A. 2A:31-1, et seq.) Plaintiffs v. All Defendants

265. Plaintiffs incorporate the allegations contained in all paragraphs of this Complaint as if fully restated herein.

266. All Defendants knew or should have known that the use of the Toxins including PFAS and/or the discharge of the Toxins including PFAS into the air, soil, groundwater and drinking water was hazardous to human health and the environment.

267. All Defendants knew or should have known that it was unsafe and/or unreasonably dangerous to discharge the Toxins including PFAS compounds into the environment in proximity to surrounding residential communities, including Plaintiffs' residence.

268. All Defendants knew or should have known that exposure to the Toxins including PFAS could proximately cause or aggravate the injuries and illnesses from which Plaintiffs suffer.

269. All Defendants should have foreseen that Plaintiffs would have been exposed to the Toxins including PFAS as a consequence of Defendants' conduct and that such exposures

were capable of causing the diseases from which Plaintiffs Olivia and Riley and Anthony suffer.

270. All Defendants should have undertaken the research necessary to ascertain if the Toxins including PFAS compounds could adversely impact human health, whether their use, manufacture, and/or sale of the Toxins including PFAS was likely to enter into the environment and whether as a consequence of the use, manufacture and/or sale of the Toxins including PFAS people, such as the Plaintiffs, would be injured.

271. All Defendants negligently handled the Toxins including PFAS and failed to prevent the injury of people such as Plaintiffs who were exposed to the Toxins including PFAS used, manufactured and/or sold by Defendants.

272. Defendant, 3M, had a duty to take all necessary steps to prevent Plaintiffs' exposure to the Toxins including PFAS.

273. Defendant, 3M, had the duty to undertake all studies necessary to prevent the Toxins including PFAS from causing harm to Plaintiffs and others.

274. Defendant, 3M, had a duty to warn Plaintiffs about the possible' exposure to the Toxins including PFAS and how to avoid that exposure.

275. Defendant, 3M, breached the duty owed to Plaintiffs to prevent their exposure to the Toxins including PFAS.

276. Defendant, 3M, breached its duty to undertake all studies necessary to prevent the Toxins including PFAS from causing harm to Plaintiffs and others.

277. Defendant, 3M, breached the duty it owed to Plaintiffs to warn them about their possible exposure to the Toxins including PFAS and how to avoid that exposure.

278. Defendant, 3M's conduct, with regard to the handling, release and discharge of the

Toxins including PFAS was unreasonable.

279. Defendant, 3M's conduct, with permitted Plaintiffs' exposure to the Toxins including PFAS was unreasonable.

280. Defendant, 3M's failure to undertake all studies necessary to prevent the Toxins including PFAS from causing harm to Plaintiffs and others was unreasonable.

281. Defendant, 3M's, failure to warn Plaintiffs about their possible exposure to the Toxins including PFAS and how to avoid that exposure was unreasonable.

282. Defendant, AGC, had a duty to take all necessary steps to prevent Plaintiffs' exposure to the Toxins including PFAS.

283. Defendant, AGC, had the duty to undertake all studies necessary to prevent the Toxins including PFAS from causing harm to Plaintiffs and others.

284. Defendant, AGC, had a duty to warn Plaintiffs about the possible' exposure to the Toxins including PFAS compounds and how to avoid that exposure.

285. Defendant, AGC, breached the duty owed to Plaintiffs to prevent their exposure to the Toxins including PFAS.

286. Defendant, AGC, breached its duty to undertake all studies necessary to prevent the Toxins including PFAS from causing harm to Plaintiffs and others.

287. Defendant, AGC, breached the duty that it owed to Plaintiffs to warn them about their possible exposure to the Toxins including PFAS and how to avoid that exposure.

288. Defendant, AGC's conduct, with regard to the handling, release and discharge of the Toxins including PFAS was unreasonable.

289. Defendant, AGC's conduct, with permitted Plaintiffs' exposure to the Toxins including PFAS was unreasonable.

290. Defendant, AGC's, failure to undertake all studies necessary to prevent the Toxins including PFAS from causing harm to Plaintiffs and others was unreasonable.

291. Defendant, AGC's, failure to warn Plaintiffs about their possible exposure to th the Toxins including PFAS and how to avoid that exposure was unreasonable.

292. Defendant, Solvay and Hubert, had a duty to take all necessary steps to prevent Plaintiffs' exposure to the Toxins including PFAS.

293. Defendant, Solvay and Hubert, had the duty to undertake all studies necessary to prevent the Toxins including PFAS from causing harm to Plaintiffs and others.

294. Defendant, Solvay and Hubert, had a duty to warn Plaintiffs about the possible' exposure to the Toxins including PFAS and how to avoid that exposure.

295. Defendant, Solvay and Hubert, breached the duty owed to Plaintiffs to prevent their exposure to the Toxins including PFAS.

296. Defendant, Solvay and Hubert, breached its duty to undertake all studies necessary to prevent the Toxins including PFAS from causing harm to Plaintiffs and others.

297. Defendant, Solvay and Hubert, breached the duty they owed to Plaintiffs to warn them about their possible exposure to the Toxins including PFAS and how to avoid that exposure.

298. Defendant, Solvay's and Hubert's conduct, with regard to the handling, release and discharge of the Toxins including PFAS was unreasonable.

299. Defendant, Solvay's and Hubert's conduct, with permitted Plaintiffs' exposure to the Toxins including PFAS was unreasonable.

300. Defendant, Solvay's and Hubert's, failure to undertake all studies necessary to prevent the Toxins including PFAS from causing harm to Plaintiffs and others was

unreasonable.

301. Defendant, Solvay's and Hubert's, failure to warn Plaintiffs about their possible exposure to the Toxins including PFAS and how to avoid that exposure was unreasonable.

302. Defendants are jointly and severally liable for all illnesses and injuries sustained by Plaintiffs arising out of exposure to the Toxins including PFAS.

303. The acts and omissions of Defendants, including but not limited to those set forth above, were negligent.

304. Defendants' acts and omissions, including but not limited to those set forth above, proximately caused injury to Plaintiffs.

305. Plaintiffs have suffered and/or will in the future suffer damage, including but not limited to damage in the form of bodily injury, mental anguish, economic loss, medical expenses, loss of enjoyment of life's pleasures, and disability and they were otherwise damaged.

WHEREFORE, Plaintiffs request that this Court enter judgment against Defendants for compensatory and non-compensatory damages and punitive damages, together with interest, costs, attorneys' fees, and all such other relief as the Court deems proper.

Count II

Gross Negligence and Recklessness Misconduct (N.J.S.A. 2A:62A-9) Plaintiffs v. All Defendants

306. Plaintiffs incorporate the allegations contained in all paragraphs of this Complaint as if fully restated herein.

307. At all relevant times, Defendants committed acts and omissions with respect to the Toxins including PFAS with actual malice and/or with a wanton and willful disregard of persons who foreseeably might be harmed by those acts or omissions and/or

with gross negligence.

308. Such conduct was motivated by greed in an effort to maximize profit and in disregard of their duties and responsibilities to the public and to Plaintiff.

309. The acts and omissions of Defendants, including but not limited to those set forth above, were grossly negligent.

310. Defendants' acts and omissions, including but not limited to those set forth above, proximately caused injury to Plaintiffs.

311. Defendants are jointly and severally liable for all illnesses and injuries sustained by Plaintiffs arising out of exposure to the Toxins including PFAS.

312. Plaintiffs have suffered and/or will in the future suffer damage, including but not limited to damage in the form of bodily injury, emotional distress, economic loss, medical expenses and were otherwise damaged.

WHEREFORE, Plaintiffs request that this Court enter judgment against Defendants for compensatory and non-compensatory damages and punitive damages, together with interest, costs, attorneys' fees, and all such other relief as the Court deems proper.

Count III

Absolute Liability (Abnormally Dangerous Activities) Plaintiffs v. All Defendants

313. Plaintiffs incorporate the allegations contained in all paragraphs of this Complaint as if fully restated herein.

314. At all relevant times, Defendant Solvay, Hubert, and John Doe Entities # 1-10 sold, disposed of, discharged, and emitted hazardous Toxins including PFAS from the Leonard's Lane Facility.

315. As a result of Defendants, 3M and AGC, selling Toxins including PFAS to

Defendants Solvay, Hubert, and John Doe Entities #1-10 for use at the Leonard's Lane Facility, and the discharge of the Toxins including PFAS by Defendants and John Doe Entities #1-10 from the Leonard Lane Facility into the air, soil, and the groundwater under Plaintiffs' property, Plaintiffs were exposed to and harmed by the Toxins including PFAS.

316. The manufacturing, sale, utilization, disposal, and discharge of the Toxins including PFAS by Defendants constitute abnormally dangerous activities that introduce an unusual danger in the community.

317. Defendants' activities in selling, manufacturing, utilization, disposal, and discharge of the Toxins including PFAS presented a high degree of risk and of harm to the person, land, and/or chattels of others.

318. It was likely that the harm resulting from Defendants' activities would be great.

319. The exercise of reasonable care does not eliminate the risk of harm posed by Defendants' activities.

320. The dangerous attributes of and risk posed by all Defendants' activities outweighed their value to the community.

321. At all relevant times, the risk of the Defendants' abnormally dangerous activities outweighed the value to the community.

322. Defendants' acts and omissions in selling, manufacturing, utilizing, disposing, and discharging hazardous chemicals proximately caused the contamination to Plaintiffs' properties and injuries to Plaintiffs, making the Defendants absolutely liable for the harm caused by such contamination.

323. All Defendants foreseeably contributed to the contamination of the environment with the Toxins including PFAS, and all subsequently contributed to Plaintiff's exposure

to these chemicals, thereby causing injury to them.

324. All Defendants are jointly and severally liable for all illnesses and injuries sustained by Plaintiffs arising out of exposure to the Toxins including PFAS.

325. Defendants' acts and omissions, including but not limited to those set forth above, proximately caused injury to Plaintiffs.

326. Plaintiffs have suffered and/or will in the future suffer damage, including but not limited to damage in the form of bodily injury, mental anguish, disability, loss of enjoyment of life's pleasures, economic loss, medical expenses and was otherwise damaged.

327. As a direct and proximate result of Defendants' shipments and discharges of the Toxins including PFAS, Plaintiff have and will continue to suffer damages.

WHEREFORE, Plaintiffs request that this Court enter judgment against Defendants for compensatory and non-compensatory and punitive damages, together with interest, costs, attorneys' fees, and all such other relief as the Court deems proper.

Count IV

Strict Liability (Failure to Warn) Plaintiffs v. All Defendants

328. Plaintiffs incorporate the allegations contained in all paragraphs of this Complaint as if fully restated herein.

329. Defendants developed, tested, assembled, manufactured, packaged, labeled, prepared, distributed, marketed, and/or supplied the Toxins including PFAS for sale and sold such products in the ordinary course of their businesses.

330. Upon information and belief, Defendants and John Doe Entities #1-10 and others

utilized the Toxins including PFAS supplied by Defendants 3M and AGC in a reasonably foreseeable and intended manner.

331. The Toxins including PFAS sold, manufactured, and used by Defendants were unreasonably dangerous to residents of surrounding communities, including Plaintiffs, without adequate warnings and instructions to prevent discharge of the Toxins including PFAS into the environment and accumulation inside the bodies of residents in surrounding communities, including Plaintiff.

332. Defendants knew or should have known that the Toxins including PFAS they sold would be discharged into the environment and cause contamination of the water supply of residents and accumulation in the blood serum and bodily tissues of residents living in the surrounding communities, including Plaintiffs, causing them to suffer illness and disease.

333. Defendants failed to advise Plaintiffs and those foreseeably exposed to the Toxins including PFAS about the risks these products posed to foreseeable third parties, such as Plaintiffs, and about techniques that could be employed to reduce or eliminate these risks.

334. Defendants had actual knowledge of the health hazards associated with the Toxins including PFAS through animal studies conducted by researchers employed or contracted by such Defendants and through experience with Defendants' own workers, but, failed to share such information with purchasers, users, or those foreseeably exposed to their products.

335. Defendants acted with reckless indifference to the health and safety of residents in communities near the Leonard Lane Facility where the Toxins including PFAS compounds were used by failing to provide adequate warnings of the known dangers of such products when discharged into the environment and ingested by nearby residents,

such as Plaintiffs.

336. All Defendants had a duty to warn those exposed to the Toxins including PFAS of the dangers of releasing the Toxins including PFAS into the environment.

337. Defendants breached the above non-delegable duties by failing to adequately warn and provide sufficient instructions to those who might be exposed to the Toxins including PFAS.

338. All Defendants are jointly and severally liable for all illnesses and injuries sustained by Plaintiffs arising out of exposure to the Toxins including PFAS.

339. Plaintiffs have suffered and/or will in the future suffer damage, including but not limited to damage in the form of bodily injury, mental anguish, disability, loss of enjoyment of life's pleasures, economic loss, medical expenses and was otherwise damaged.

WHEREFORE, Plaintiffs request that this Court enter judgment against Defendants for compensatory and non-compensatory and punitive damages, together with interest, costs, attorneys' fees, and all such other relief as the Court deems proper.

Count V

Private Nuisance Plaintiffs v. All Defendants

340. Plaintiff incorporates the allegations contained in all preceding paragraphs as if fully restated herein.

341. Defendants' acts and omissions with respect to the release of the Toxins including PFAS in the environment resulted in the contamination of the air, soil, and water, including but not limited to Plaintiff's water supply, and have thus unreasonably interfered with Plaintiffs' use and enjoyment of their property, invading the home and body of

Plaintiffs.

342. Defendants' acts and omissions with respect to the release of the Toxins including PFAS has made Plaintiffs' water supply unfit for consumption and other domestic purposes.

343. Defendants' unreasonable interference with the use and enjoyment of Plaintiffs' property constitutes a continuous invasion of their rights.

344. Defendants all contributed to the contamination of the environment with the Toxins including PFAS, and all substantially contributed to a private nuisance on Plaintiffs.

WHEREFORE, Plaintiffs request that this Court enter judgment against Defendants for compensatory and non-compensatory damages, together with interest, costs, attorneys' fees, and all such other relief as the Court deems proper.

Count VI

Public Nuisance Plaintiffs v. All Defendants

345. Plaintiffs incorporate the allegations contained in all preceding paragraphs as if fully restated herein.

346. Defendants' conduct detailed above unreasonably interfered with a right common to the general public, including the public's right to be free from environmental contamination in the air it breathes and water it drinks, and in which its members bathe, shower, and swim.

347. Defendants' conduct detailed above unreasonably and significantly interfered with the public health and public safety by contaminating water, soil, and air with toxic and carcinogenic chemicals.

348. Defendants' conduct was of a continuing nature, and/or produced a long-lasting effect, and Defendants knew and/or had reason to know that it would have a significant effect on the public's rights.

349. Plaintiffs suffered harm of a kind different from that suffered by other members of the public exercising the right common to the general public.

350. Defendants' acts and omissions with respect to the release of PFAS in the environment including the air, soil, and water resulted in the contamination of Plaintiffs' home and private water supply.

351. Defendants' unreasonable interference with the use and enjoyment of Plaintiffs' property constitutes a continuous invasion of her rights.

352. Defendants all contributed to the contamination of the environment with the Toxins including PFAS, and all subsequently contributed to the public nuisance imposed on Plaintiffs.

353. Defendants' creation of a continuing public and/or private nuisance has damaged Plaintiffs in the form of bodily injury, emotional distress, and other damages all of a type not common to the general public, for which Defendants are liable.

WHEREFORE, Plaintiffs request that this Court enter judgment against Defendants for compensatory and non-compensatory and punitive damages, together with interest, costs, attorneys' fees, and all such other relief as the Court deems proper.

Count VII

Past and Continuing Trespass Plaintiffs v. All Defendants

354. Plaintiffs incorporate the allegations contained in all preceding paragraphs as if fully restated herein.

355. As related above, Plaintiffs were owner(s) and/or possessor(s) of real property and reside or resided on those properties.

356. Defendants negligently, recklessly, and/or intentionally failed to properly control, apply, use and/or dispose of the Toxins including PFAS resulting in its discharge into the environment entering, invading, intruding, and injuring the rights of Plaintiffs to possess and enjoy their properties.

357. Plaintiffs have not consented and do not consent to the contamination alleged herein, and Defendants knew or reasonably should have known that Plaintiffs would not consent to such.

358. Defendants all contributed to the contamination of the environment with PFAS, and all subsequently contributed to the past and continuing trespass imposed on Plaintiffs.

359. As a direct and proximate result of Defendants' acts and omissions as alleged herein, the soil and drinking water wells on Plaintiff's properties have been contaminated with the Toxins including PFAS, causing significant personal injuries and damage, including actual, consequential, and nominal damages as described above.

WHEREFORE, Plaintiffs request that this Court enter judgment against Defendants for compensatory and non-compensatory and punitive damages, together with interest, costs, attorneys' fees, and all such other relief as the Court deems proper.

Count VIII

Strict Liability (Defective Design) Plaintiffs v. All Defendants

360. Plaintiffs incorporate the allegations contained in all preceding paragraphs as if fully restated herein.

361. Defendants designed, manufactured, and sold the Toxins including PFAS that were

used at the West Deptford/Leonard Lane facilities and elsewhere by Defendants Solvay, Hubert, and John Doe Entities #1-10.

362. As a manufacturer and seller of the Toxins including PFAS, Defendants had a duty to make and sell products that are reasonably fit, suitable, and safe for their intended or reasonably foreseeable uses.

363. Defendants owed that duty to direct users of its products, to reasonably foreseeable users of its products, and also to any person who might reasonably be expected to come into contact with these products, such as Plaintiffs.

364. Defendants and owed that duty to direct users of its products, to reasonably foreseeable users of their products, and also to any person who might reasonably be expected to come into contact with these products, such as Plaintiffs.

365. Defendants' products were used in a reasonably foreseeable manner and without substantial change in the condition of such products and were defective and unfit for their reasonable use.

366. Defendants knew or should have known that use of their products including by Solvay, its employees including Hubert, and John Doe Entities #1-10 would result in the spillage, discharge, and/or release the Toxins including PFAS into the environment and would contaminate the environment including the groundwater, air, soil, and drinking water of surrounding communities, including Plaintiffs'.

367. Defendants knew or should have known that its products including the Toxins including PFAS would eventually come into contact with and harm residents in surrounding communities, including Plaintiffs.

368. Defendants' products were defective in design and unreasonably dangerous

because, among other things: a) the Toxins including PFAS cause extensive and persistent contamination when used in a reasonably foreseeable and intended manner; and b) the Toxins including PFAS cause contamination in the environment, including the air, soil, and groundwater, which are the sources of drinking water to citizens in the surrounding communities, including Plaintiffs, and pose significant threats to their health, safety, and welfare.

369. At all relevant times, Defendants' products which they designed, manufactured, and sold were dangerous to an extent beyond that which would be contemplated by the ordinary consumer.

370. The foreseeable risk to public health and welfare, including that of Plaintiffs, posed by Defendants' products outweighed the cost to Defendants of reducing or eliminating such risk.

371. Defendants knew or should have known about reasonably safer and feasible alternatives to their products that contained PFAS and the other Toxins.

372. As a direct and proximate result of Defendants' acts and omissions, Plaintiffs have and will continue to suffer damages.

WHEREFORE, Plaintiffs request that this Court enter judgment against Defendants for compensatory and non-compensatory and punitive damages, together with interest, costs, attorneys' fees and all such other relief as the Court deems proper.

JURY DEMAND

Plaintiff(s) hereby demand a trial by jury on all issues so triable.

DESIGNATION OF TRIAL COUNSEL

Steven Phillips, Esq. is hereby designated as trial counsel on behalf of Plaintiff.

DEMAND FOR ANSWERS TO INTERROGATORIES

Pursuant to R. 4:17-1 (b), the plaintiffs hereby demand that the defendants provide answers to the uniform interrogatories set forth in Form C and Form C (1) of Appendix II of the Rules Governing the Courts of the State of New Jersey.

CERTIFICATION

Pursuant to the provisions of R. 4:5-1, the undersigned attorney certifies that, with the following exceptions, this matter is not the subject of any other action pending in any court or arbitration proceeding nor is any other action or arbitration proceeding contemplated, and all known necessary parties have been joined in this action:

1. John Giordano et al. v. Solvay Specialty Polymers, USA, et al., C.A., No. 1:19-cv-21573, which is venued in the Camden Vicinage; and
2. Kimberly Bond et al. v. Solvay Specialty Polymers USA, LLC, et al. C.A., No.1:20-cv-08487, which is venued in the Camden Vicinage.
3. Theresa Slusser, et al. v. Solvay Specialty Polymers, et al. – Docket No. 1:20-cv-11393
4. Corby Deese and Tammy O’Leary v. Solvay Specialty Polymers, et al. – Docket No. 1:21-cv-217
5. Carly Corrar and Shirley Bond v. Solvay Specialty Polymers, et al. – Docket No. 1:21-cv-452
6. Shirley Bond v. Solvay Specialty Polymers, et al. – Docket No. 1:21-cv-11203
7. Nicole Bond v. Solvay Specialty Polymers, et al. – Docket No. 1:21-cv-20755
8. Marcia M. Philipp, Gerald L. Philipp, h/w and Gerald E. Philipp v. Solvay Specialty Polymers, et al. – Docket No. 1:22-cv-395
9. Erin Allbritton v. v. Solvay Specialty Polymers, et al. – Docket No. 1:22-cv-397
10. Stacy Allen v. v. Solvay Specialty Polymers, et al. – Docket No. 1:22-cv-396
11. Renee Mesogianes and William Mesogianes v. v. Solvay Specialty Polymers, et al. –

Docket No. 1:22-cv-394

12. Lombardo, et al. v. Solvay Specialty Polymers, USA, LLC, et al. – Civil No. 20-15014
13. Lloyd v. Solvay Specialty Polymers, USA, LLC, et al. - Civil No. 21-9705
14. Briggs, et al. v. Solvay Specialty Polymers, USA, LLC, et al. - Civil No. 21-9699
15. Britton, et al. v. Solvay Specialty Polymers, USA, LLC, et al. - Civil No. 21-9707
16. Gouse, et al. v. Solvay Specialty Polymers, USA, LLC, et al. - Civil No. 21-9711
17. Philipp, et al. v. Solvay Specialty Polymers, USA, LLC, et al. - Civil No. 21-9714
18. Callis, et al. v. Solvay Specialty Polymers, USA, LLC, et al. - Civil No. 21-1521
19. Severa, et al. v. Solvay Specialty Polymers, USA, LLC, et al. - Civil No. 20-6906
20. Borough of National Park v. Solvay Specialty Polymers, USA, LLC, et al. – Civil No. 21-9725 (NLH/AMD)
21. Walzer et al. v. Solvay Specialty Polymers, USA, LLC, et al. - Civil No. 23-4174
22. Counselor v. Solvay Specialty Polymers, USA, LLC, et al. - Civil No. 24-10189
23. Dupper et al. v. Solvay Specialty Polymers, USA, LLC, et al. - Civil No. 24-10533

The undersigned counsel further certify that we are aware of no other parties who should be joined in this matter at this time.

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Dated: May 23, 2025

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NEW JERSEY DEPARTMENT OF
ENVIRONMENTAL PROTECTION; THE
COMMISSIONER OF THE NEW JERSEY
DEPARTMENT OF ENVIRONMENTAL
PROTECTION; and THE
ADMINISTRATOR OF THE NEW JERSEY
SPILL COMPENSATION FUND,

Plaintiffs,

v.

SOLVAY SPECIALTY POLYMERS USA,
LLC; ARKEMA INC; AND "ABC
CORPORATIONS" 1-10 (Names
Fictitious),

Defendants.

SUPERIOR COURT OF NEW JERSEY
LAW DIVISION

GLOUCESTER COUNTY

DOCKET NO. _____

CIVIL ACTION

COMPLAINT AND JURY TRIAL
DEMAND

Plaintiffs the New Jersey Department of Environmental
Protection ("Department" or "NJDEP"), the Commissioner of the
Department of Environmental Protection ("Commissioner"), and the

Administrator of the New Jersey Spill Compensation Fund ("Administrator") (collectively the "Plaintiffs") file this Complaint against the above-named defendants (the "Defendants"), and allege as follows:

I. STATEMENT OF THE CASE

1. Plaintiffs bring this civil action against Defendants for damages and other relief caused by discharges and emissions of hazardous substances, pollutants, and contaminants at and from the Solvay Specialty Polymers USA, LLC manufacturing facility, located at 10 Leonard Lane, West Deptford, Gloucester County ("Solvay Site" or "Site").

2. Hazardous substances, pollutants, and contaminants discharged and emitted at and from the Site include per- and polyfluoroalkyl substances ("PFAS"), "forever chemicals" that persist indefinitely in the environment and bioaccumulate in the blood of humans. There is no more concentrated finding of perfluorononanoic acid ("PFNA") - a type of PFAS - in the State as at and around the Solvay Site, where Defendants released tens of thousands of pounds of PFAS compounds into New Jersey's environment for decades. In fact, levels of PFNA detected in surface water and public drinking water near the Site have been higher than has been reported anywhere else in the world.

3. Despite evidence of widespread contamination caused by activities at the Site, Solvay Specialty Polymers USA, LLC, the current owner of the Site, has repeatedly refused to comply with Plaintiffs' numerous directions to investigate all contamination from the Site and to pay for the treatment of all contaminated drinking water. Solvay Specialty Polymers USA, LLC's conduct has been driven by its desire to profit from the sale of its products and avoid the expense of properly disposing of and cleaning up PFAS, despite the harm it has caused to New Jersey's citizens and the environment.

4. Plaintiffs bring action pursuant to the Spill Compensation and Control Act, N.J.S.A. 58:10-23.11 to -23.24 ("Spill Act"); the Water Pollution Control Act, N.J.S.A. 58:10A-1 to -20 ("WPCA"); the Air Pollution Control Act, N.J.S.A. 26:2C-1 to -57 ("APCA"); the Solid Waste Management Act, N.J.S.A. 13:1E-1 to -230. ("SWMA"); the Brownfield and Contaminated Site Remediation Act, N.J.S.A. 58:10B-1 to -31 ("Brownfield Act"); and the common law of New Jersey.

5. Solvay Specialty Polymers, USA, LLC and its predecessor companies, including Solvay Solexis, Inc. and Ausimont USA, Inc., (collectively "Solvay"), have owned the Site since 1990. Prior to that, Arkema, Inc. and its predecessor companies, including Atochem North America, Inc., Elf Atochem North America Inc., and

Pennwalt Corporation (collectively "Arkema"), owned the Site from 1970 to 1990.

6. During their operation of the Site, Solvay and Arkema each utilized and discharged hazardous substances and pollutants into the environment. As a result of their processes, discharges, emissions, and waste disposal practices, Solvay and Arkema contaminated the Site and the surrounding area with numerous hazardous substances and pollutants, including but not limited to semi-volatile organic compounds ("SVOCs"), volatile organic compounds ("VOCs"), metals, polychlorinated biphenyls ("PCBs"), and PFAS.

7. Significantly, Solvay and Arkema used and discharged PFAS compounds at the Site, including PFNA and perfluorooctanoic acid ("PFOA"). PFNA, PFOA, and other PFAS compounds are extremely resistant to degradation, causing them to persist indefinitely in the environment, and they bioaccumulate in the blood of humans. PFAS compounds pose a substantial threat to human health and the environment.

8. Although Solvay and Arkema knew or should have known of the dangers of PFAS for decades, regulatory agencies around the world are only now coming to understand the true nature and dangers of these global contaminants. Today, Plaintiffs are expending substantial public resources to investigate PFAS, including their

toxicity and impacts to human health and the environment, and to locate, remediate, treat, and/or restore New Jersey's natural resources that are impacted with these "forever chemicals."

9. Solvay and Arkema used, discharged (both directly and indirectly via Gloucester County Utilities Authority), emitted, and dumped tens of thousands of pounds of PFAS compounds into New Jersey's air, waters, and other natural resources at and from the Site for decades. Despite doing so, Solvay and Arkema failed to disclose the impact of their use and releases of PFAS into the environment to the Department and the surrounding community.

10. Indeed, the Department was only alerted to the magnitude of the impact of the PFAS released at the Site through a study conducted by the Delaware River Basin Commission ("DRBC"). From 2007-2009, DRBC conducted a multi-year survey of contaminants of emerging concern in the Delaware River. The survey found PFNA in the Delaware River water up to 976 parts per trillion ("ppt") near the Site. This concentration of PFNA was the highest reported concentration in surface water in the world at that time.

11. Further investigation since that time has revealed significant PFAS contamination on and off-Site.

12. PFAS compounds discharged and emitted from the Site have been detected in drinking water, groundwater, surface waters, sediments, soils, air, fish, plants, and other natural resources

at locations miles from the Site. For example, in 2014, PFNA was detected at 150 ppt in the public water system of Paulsboro, New Jersey, prompting the New Jersey Department of Health to recommend that residents use bottled water for infant formula and other drinking uses for children up to the age of one year. Since that time, New Jersey adopted a Maximum Contaminant Level (i.e., drinking water standard) of 13 ppt for PFNA. Thus, the concentration present in Paulsboro's water was more than eleven times the regulatory limit permitted for drinking water.

13. Although Solvay ceased using products containing PFNA and PFOA in its manufacturing processes at the Site in 2010, it continued to discharge wastewater containing these and other PFAS compounds into the Delaware River. These discharges continue through today.

14. Despite multiple lines of evidence linking the Site to extensive PFAS contamination near and distant from the Site, Solvay has refused to take full responsibility for the necessary investigation and remediation. Instead, Solvay has repeatedly sought to blame other actors for PFNA contamination in the surrounding area, *despite that it was the dominant user of PFNA in the area for decades*. Solvay also has refused to comply with the Department's numerous directions to investigate all contamination

pathways and pay for the treatment of all contaminated drinking water.

15. Solvay also *continues to use* problematic "replacement" PFAS compounds at the Site, and has hidden much of its activity regarding these compounds from the Department and from public view.

16. More than a year-and-a-half ago, the Department issued a Statewide PFAS Directive, Information Request, and Notice to Insurers ("PFAS Directive") that required Solvay, among other things, to provide the Department with information regarding these "replacement" PFAS compounds. In response, Solvay disclosed to the Department that it has emitted and discharged so-called "replacement" PFAS compounds at the Site to New Jersey's air and water for many years. In fact, Solvay began using these "replacement" PFAS compounds before it stopped using either PFNA or PFOA, and it continues to use, emit, and discharge these compounds at the Site today.

17. Solvay has asserted that the specific chemical identities of the "replacement" PFAS compounds Solvay is using, emitting, and discharging at the Site, as well as emissions information, Safety Data Sheets, and toxicology and toxicokinetic studies that describe the health and environmental risks they pose, are confidential, trade secret, and proprietary. In so doing, Solvay has effectively barred the Department from disclosing this

information to the public at this time.¹ Solvay has also failed to provide the Department with publicly available technical grade analytical standards which would enable laboratory instruments to quantify these compounds in environmental samples.

18. According to an article published in Science in 2020 entitled "Nontargeted mass-spectral detection of chloroperfluoropolyether carboxylates in New Jersey soils," some of the "replacement" PFAS compounds that Solvay is likely using at the Site are chloroperfluoropolyether carboxylates ("ClPFPECAs").

19. Like PFNA and PFOA, ClPFPECAs have been identified in the environment in Gloucester and Salem Counties. For example, in 2020, EPA reported to the Department that it had detected ClPFPECAs in water samples collected from private potable wells near the Site.

20. Upon information and belief, ClPFPECAs pose risks to public health and the environment similar to the risks posed by PFNA and PFOA.

21. The Department will not wait any longer while Solvay seeks to escape responsibility for the contamination it has caused and puts its corporate interests over that of New Jersey's citizens and environment.

¹ Plaintiffs are unable to allege certain facts at this time due to Solvay's confidential business information ("CBI") claims.

22. Accordingly, Plaintiffs bring this action to require Defendants to fully investigate and delineate all of the pollutants and hazardous substances, including PFAS compounds, that were and continue to be discharged, released, and/or emitted from the Solvay Site, wherever they have come to be located. In the alternative, Plaintiffs seek all of the costs necessary to fully investigate and delineate all of the pollutants and hazardous substances, including PFAS compounds, that were and continue to be discharged, released, and/or emitted from the Solvay Site, wherever they have come to be located. In addition, Plaintiffs seek an order requiring Defendants to cease all unpermitted discharges, emissions, and disposal of all pollutants, hazardous substances, and solid wastes, including PFAS compounds, that continue to be discharged, emitted, and/or disposed from the Solvay Site. Plaintiffs also seek an order that would require Defendants to remediate, assess, and restore the Site and all of the off-site areas and natural resources of New Jersey that have been contaminated from the Solvay Site.² In the alternative, Plaintiffs seek all of the costs

² The State is explicitly reserving its claims to remediate and restore the Delaware River, itself, until such time as the investigation work relating to the River is more fully complete. Additionally, in this litigation, the State is not asserting claims, costs, or damages associated with aqueous film-forming foam ("AFFF"). The State brings this action for contamination originating from Defendants' industrial operations, waste disposal practices, emissions, releases, and discharges at and from the Site, and does not assert claims or seek damages related to the use of AFFF.

necessary to remediate, assess, and restore the Site and all of the off-site areas, receptors (including potable wells), and natural resources of New Jersey that have been contaminated from the Solvay Site.

23. Plaintiffs also seek from Defendants past direct and indirect costs, damages for injuries to all natural resources, property damages, economic damages, restitution, disgorgement of the Defendants' ill-gotten profits, assessment against Defendants of the actual amount of any economic benefit accrued from violating applicable laws, lost income, lost taxes, punitive damages, pre-judgment and post-judgment interest, litigation fees and costs, and all other damages, costs, and equitable relief to which it may be entitled.

II. THE PARTIES

24. The Department is a principal department within the Executive Branch of the State government. Under the leadership of the Commissioner, it is vested with the authority to conserve natural resources, protect the environment, prevent pollution, and protect the public health and safety. N.J.S.A. 13:1D-9; N.J.S.A. 58:10-23.11b; N.J.S.A. 58:10A-3.

25. The State is the trustee, for the benefit of its citizens, of all natural resources within its jurisdiction. Plaintiff the Department is vested with the authority to protect

this public trust and to seek compensation for any injury to the natural resources of this State. N.J.S.A. 58:10-23.11a. In addition, the State may act in its parens patriae capacity to protect the State's "quasi-sovereign" interests, including its interest in the health and well-being of its residents and the integrity of its natural resources. The Department brings this case in its trustee, parens patriae, and regulatory (police power) capacities, as well as in its capacity as an owner of real property directly impacted by contamination originating from the Site.

26. Plaintiff Commissioner is the Commissioner of the Department. N.J.S.A. 58:10-23.11b and N.J.S.A. 58:10A-3. In this capacity, the Commissioner is vested by law with various powers and authority, including those conferred by the Department's enabling legislation. N.J.S.A. 13:1D-1 to -19.

27. Plaintiff Administrator is the Chief Executive Officer of the New Jersey Spill Compensation Fund ("the Spill Fund"). N.J.S.A. 58:10-23.11j. As Chief Executive Officer of the Spill Fund, Plaintiff Administrator is authorized to approve and pay any cleanup and removal costs the Department incurs, N.J.S.A. 58:10-23.11f(c) and (d), and to certify the amount of any claim to be paid from the Spill Fund. N.J.S.A. 58:10-23.11j(d).

28. Defendant Solvay Specialty Polymers USA, LLC is a corporation duly organized under the laws of the State of Delaware, with its principal place of business located at 4500 McGinnis Ferry Road, Alpharetta, Georgia, 30005. Solvay Specialty Polymers USA, LLC is the corporate successor of Solvay Solexis, Inc. and Ausimont USA, Inc.

29. Defendant Arkema Inc. is a corporation duly organized under the laws of the State of Pennsylvania, with its principal place of business located at 900 First Avenue, King of Prussia, Pennsylvania, 19406. Arkema Inc. is the corporate successor of Atochem North America Inc., Elf Atochem North America Inc., and Pennwalt Corporation.

30. Defendants "ABC Corporations" 1-10, these names being fictitious, are entities with identities that cannot be ascertained as of the filing of this Complaint that are otherwise liable for the causes of action set forth herein.

III. AFFECTED NATURAL RESOURCES

31. The "natural resources" of this State are all land, fish, shellfish, wildlife, biota, air, water, and other such resources owned, managed, held in trust, or otherwise controlled by the State. N.J.S.A. 58:10-23.11b.

32. The natural resources of this State include the "waters of the State," which are the ocean and its estuaries, all springs, streams and bodies of surface and groundwater, whether natural or artificial, within the boundaries of this State or subject to its jurisdiction. N.J.S.A. 58:10A-3(t).

33. New Jersey's habitats and ecosystems – forests, lakes, rivers, wetlands, agricultural lands, coastal estuaries, pinelands, and grasslands – are some of the most threatened in the nation. They are vulnerable to pollution, degradation, and destruction from the discharge of hazardous substances and pollutants.

34. Hazardous substances and pollutants discharged, released, and/or emitted from the Site have been found in the groundwater, surface water, sediments, soils, wetlands, air, biota, and other natural resources at and off the Site.

35. These natural resources have intrinsic (i.e., inherent existence) values. The current and future residents of New Jersey have a substantial interest in a clean environment.

A. Groundwater

36. Groundwater – that is, water that exists beneath the Earth's surface – is an extremely important natural resource for the people of New Jersey. More than half of New Jersey's population obtains drinking water from groundwater sources, and

more than 900 million gallons of water per day are used for that purpose.

37. Public and private wells, which provide access to groundwater, are widely used in the communities around the Site. Well water is used for drinking water, irrigation, and filling swimming pools, among other things.

38. Not only does groundwater serve as a source of potable water, it also serves as an integral part of the State's ecosystem. Groundwater may provide base flow to streams and influence surface water quality, wetland ecological conditions, and the health of the aquatic ecosystem.

39. Groundwater also provides cycling and nutrient movement within and among the State's bodies of water and wetlands, prevents saltwater intrusion, provides ground stabilization, prevents sinkholes, and helps to maintain critical water levels in freshwater wetlands.

40. Groundwater and the other natural resources of the State are unique resources that help sustain the State's economy.

41. Hazardous substances and pollutants discharged, released, and/or emitted from the Site have reached and adversely affected groundwater both on and off-Site. Groundwater at the Site is heavily contaminated with hazardous substances and pollutants, including, but not limited to, VOCs, metals, PFNA, PFOA, and other

PFAS compounds. Discharges, emissions and/or releases of hazardous substances and pollutants at the Site have further resulted in contamination of groundwater located underneath neighboring properties and miles away from the Site.

B. Surface Water

42. Surface waters are a critical ecological resource of New Jersey. New Jersey's surface water – which includes all water in the State's lakes, streams, and wetlands – is a primary source of drinking water in the State. Nearly half of New Jersey's population obtains its drinking water from surface water sources, and approximately 850 million gallons of surface water per day is used for that purpose. In addition, much of the population in the region of the State near the Site that uses groundwater for its drinking water is actually drawing upon hydraulically connected surface water bodies.

43. Surface water in New Jersey is also used for other commercial and industrial purposes, such as cooling water and electrical generation, boating, fishing, and transportation of goods and services.

44. The tourism and recreation industries, which are vital to the State's economy, are dependent on clean water and beaches.

45. Surface waters also provide commercial, recreational, aesthetic, and ecological value, including by supporting aquatic ecosystems, nearby communities, and the citizens of the State.

46. Hazardous substances and pollutants discharged, emitted, and/or released from the Site have reached and adversely affected surface waters on and off-Site. Due to the tidal nature of the Delaware River, surface water bodies both upstream and downstream of the Site have been adversely affected. Surface water bodies that have been contaminated by hazardous substances and pollutants discharged, emitted, and/or released from the Site include, but are not limited to: the Delaware River, Mantua Creek, Little Mantua Creek, Main Ditch, Woodbury Creek, Repaupo Creek, Pargey Creek, Still Run, and several non-tidal ponds.

C. Sediments and Soils

47. New Jersey's land and aquatic resources are comprised of unique and complex ecosystems.

48. Sediments and soils are critical components of New Jersey's ecological resources.

49. Sediments and soils can sustain a wide diversity of plants and animals that are essential in a healthy ecosystem. They provide a living substrate for submerged and emergent flora and that support diverse invertebrate species, wading birds, and fish and shellfish populations.

50. Contaminated sediment and soil can be a source of contamination to other types of natural resources, including surface water, groundwater, and biota.

51. Hazardous substances and pollutants discharged, emitted, and/or released from the Site have reached and adversely affected sediments and soils on and off-Site.

D. Wetlands

52. Wetlands are a critical component of New Jersey's ecological resources, which include land and aquatic resources comprised of unique and complex ecosystems.

53. New Jersey has approximately 730,000 acres of freshwater wetlands and 250,000 acres of coastal wetlands.

54. Wetlands can sustain a wide diversity of plants and animals that are essential in a healthy food chain.

55. Wetlands perform many additional functions, which include the improvement of water quality, sediment trapping, groundwater recharge, shoreline protections, and protecting land from flooding and erosion.

56. Upon information and belief, hazardous substances and pollutants discharged, emitted, and/or released from the Site have reached and adversely affected wetlands on and off-Site.

E. Air

57. Air resources are vital to life. Pollution of air resources can injure human health and welfare, flora and fauna, and property, and can unreasonably interfere with the enjoyment of life and property in areas affected by such pollution. Air deposition (i.e., deposits of air contaminants on the Earth's surface) can also be a source of contamination to other types of natural resources, including surface water, groundwater, sediments and soils, wetlands, forests, and biota.

58. Air contaminants emitted from the Site have reached and adversely affected natural resources on and off-Site.

F. Biota

59. Biota, including the flora and fauna of the State, are critical ecological resources. New Jersey is home to more than 2,000 plant species, which include entire communities of rare flora that cannot be found anywhere else in the world. Approximately 15 percent of the native plant species in New Jersey, however, are now at risk of extinction, with a total of 331 vascular plant species listed as endangered and an additional 32 that have already been extirpated.

60. New Jersey wildlife includes approximately 900 species, including 90 mammal species, 79 reptile and amphibian species, more than 400 fish species, and approximately 325 species of birds.

Approximately 1.5 million shorebirds and as many as 80,000 raptors make migratory stopovers in the State each year.

61. At least 17% of New Jersey's native vertebrate species and 24% of its native invertebrate species are at risk of extinction. Several threatened and endangered raptor species have difficulty breeding because of the bioaccumulation of toxic compounds.

62. New Jersey's biodiversity provides a wealth of ecological, social, and economic goods and services that are an integral part of the ecological infrastructure for all cultural and economic activity in the State.

63. Contamination from the discharge of hazardous substances and pollutants is one of the major causes of biodiversity loss.

64. Natural resource injuries to biota in New Jersey negatively impact not only the individual species directly involved, but the capacity of the injured ecosystems to regenerate and sustain such life into the future.

65. Hazardous substances and pollutants discharged, emitted, and/or released from the Site have reached and adversely affected biota on and off-Site.

IV. GENERAL ALLEGATIONS

66. The Site encompasses approximately 243 acres and is located at 10 Leonard Lane, West Deptford, Gloucester County. It

is also designated as Block 328, Lots 1.01 and 1.07 in West Deptford Township.

67. The Site is bordered on the north by the Delaware River, by a railroad line to the south, by undeveloped property to the east, and by Little Mantua Creek to the west.

68. The current manufacturing activities at the Site are located on the southernmost 34 acres of the property, which are zoned for industrial use. This area is known as the Main Plant Area ("MPA") and contains buildings, steel structures, and aboveground storage tanks that are used in the manufacturing process. A portion of the remaining 209 acres are used for agriculture while the rest is unused and generally classified as a mixture of open land, wooded and forested lands, and wetlands.

69. Groundwater beneath the Site is stored within the Potomac-Raritan-Magothy ("PRM") aquifer system, which is subdivided into lower, middle, and upper aquifers. Heavy regional groundwater pumping in Camden and Gloucester Counties has lowered the groundwater elevation within the MPA close to or below mean sea level. Under these conditions, regional groundwater flow is generally toward the south/southeast away from the Delaware River, which recharges (loses) water to the PRM aquifer system. Groundwater recharge in the vicinity of the Site is also influenced by shallow local aquifer zones. Further, local pumping centers

create cones of depression in the aquifers in the area, further influencing groundwater flow pathways.

A. Site Ownership & Operational History

70. Until 1970, the land on which the Site is now located was used primarily as farmland. National Steel Corp. purchased the Site in 1952. No steel production occurred at the Site.

71. Between 1961 and 1970, the United States Army Corps of Engineers deposited hydraulic dredge material removed from the Delaware River along the northern portion of the property; this area covers approximately 37 acres, and the depth of the dredge materials ranges from four to eight feet deep. This area is generally referred to as the Dredge Spoils Area ("DSA").

72. In 1970, Arkema purchased the property and built a chemical manufacturing facility that produced chlorofluorocarbon ("CFC") refrigerant gases under the trade name Isotron®. Arkema operated this plant until 1977, when it was decommissioned.

73. Between 1970 and 1977, the facility's waste streams were treated by an on-Site wastewater treatment system consisting of a sump and two neutralization pits which permitted solids to settle out. The clarified supernatant entered a retention pond where it was mixed with water softeners, boiler blowdown, and cooling tower blowdown prior to discharge to the Delaware River under a New Jersey Pollutant Discharge Elimination System ("NJPDDES") permit.

74. Between 1977 and 1985, the plant was decommissioned and demolished. The wastewater treatment system and neutralization pits were also demolished; all pit lagoons, the neutralization pits, and the retention pond were backfilled.

75. Between 1983 and 1985, Arkema built a new manufacturing plant that produced industrial plastics and coatings, Kynar® (a fluoropolymer), hydrochlorofluorocarbon ("HCFC") gases, and polyvinylidene fluoride ("PVDF"). As further described below, Arkema began using Surflon®, a chemical mixture comprised of PFNA, perfluoroundecanoic acid ("PFUnDA" or "PFUnA"), PFOA and other PFAS compounds, in its manufacturing processes in 1985.

76. The new plant included: an incinerator designed to accept both liquid and gaseous wastes; an inorganic wastewater treatment system that discharged wastewater to the Delaware River under a NJPDES permit; and an organic wastewater treatment system that discharged wastewater to the Gloucester County Utilities Authority ("GCUA").

77. In October 1990, Arkema sold the Site to Solvay. Solvay has manufactured industrial plastics, coatings, and other chemicals at the Site from 1990 until today.

78. Products that have been manufactured on-Site by Solvay include, but are not limited to, PVDF (marketed by Solvay as Hylar® polymer), vinylidene fluoride, and Tecnoflon® fluoroelastomers and

perfluoroelastomers. As further described below, Solvay has used PFAS compounds in its manufacturing processes since 1990 and continues to use PFAS compounds at the Site today.

79. Waste streams from the current manufacturing processes continue to be treated by on-Site facilities, including an incinerator, an inorganic wastewater treatment system, and an organic wastewater treatment system. The inorganic wastewater treatment system continues to discharge wastewater to the Delaware River under a NJPDES permit, and the organic wastewater treatment system continues to discharge wastewater to the GCUA. Solvay disposes the sludge from its inorganic wastewater treatment system at off-Site landfills. Sludge from GCUA's treatment system has been applied to land as biosolids.

80. Manufacturing processes, discharges, emissions, and waste disposal practices at and from the Site have caused widespread soil, sediment, groundwater, and surface water contamination both on and off-Site. As a result of operations at the Site, natural resources on and off-Site have been contaminated by conventional hazardous substances and pollutants (including but not limited to VOCs, metals, and PCBs) and PFAS (including but not limited to PFNA, PFOA, and "replacement" PFAS products).

B. Conventional Contaminants

a. OVERVIEW OF INVESTIGATION AND REMEDIATION

81. Arkema finished construction of its plant in 1985, including an incinerator. In order to operate the incinerator, Arkema was required to obtain a permit under the Resource Conservation and Recovery Act ("RCRA"), which consisted of a Hazardous Waste Facility ("HWF") permit, as well as a permit pursuant to the Hazardous and Solid Waste Amendments of 1984 ("HWSA"). Arkema obtained the HWF permit by July 30, 1985, and the HWSA permit by April 24, 1989.

82. Pursuant to the HWSA permit, a RCRA Facility Assessment ("RFA") was conducted in late 1988. A June 1989 RCRA Facility Investigation ("RFI") report identified a total of 16 Solid Waste Management Units ("SWMUs"), including 12 that required further investigation.

83. Between 1989 and 1991, an additional 27 Areas of Concern ("AOCs") were identified pursuant to the New Jersey Environmental Cleanup Responsibility Act. These 27 AOCs are also known as "Historical AOCs".

84. Most of the soil investigations at the Site took place between 1990 and 2001, including sampling for numerous hazardous substances and pollutants, excavation of PCB-contaminated soil, and construction of a soil cap in the DSA.

85. Groundwater investigation activities conducted between 1989 and 2008 primarily focused on the MPA. In 2009, Solvay began to investigate groundwater contamination downgradient of the MPA, including at off-Site properties to the south of the Site.

86. The investigation revealed a plume of contaminants, including, but not limited to, 1,1-dichloroethene ("1,1-DCE") and 1,1-dichloro-1-difluoroethane ("HCFC-141b"), extending off-Site to the south.

87. In 2014, Solvay undertook a Preliminary Assessment ("PA") and a Site Investigation ("SI") as required pursuant to the Industrial Site Recovery Act. The PA identified two new AOCs that required additional soil investigation.

b. CONVENTIONAL CONTAMINATION AT AND AROUND THE SITE

88. As a result of multiple years of investigation at the Site, much of the injury to natural resources by conventional contaminants including, but not limited to VOCs and metals, is well-documented. These injuries include, but are not limited to, the following:

i. Groundwater Contamination

89. Historical Site operations have heavily contaminated groundwater on and off-Site with hazardous substances and pollutants, including but not limited to VOCs.

90. Groundwater samples collected between 2003 and 2012 detected numerous VOCs on-Site at concentrations exceeding applicable groundwater quality standards, including but not limited to 1,1,1-trichloroethane ("1,1,1-TCA"); 1,1-DCE; 1,1-dichloroethane; 1,2-dichloroethane; carbon tetrachloride; 1-chloro-1,1-difluoroethane ("HCFC-142b"); 1,1,1-trifluoroethane ("HCFC-143a"); HCFC-141b; 1,1,2-trichloro-1,2,2-trifluoroethane ("Freon 113"); and vinyl chloride.

91. Some contaminants exceeded groundwater quality standards by many orders of magnitude. For example, 1,1,1-TCA was measured on-Site at a concentration of 109,000 parts per billion ("ppb") (more than 3,600 times the groundwater quality standard of 30 ppb).

92. Certain VOCs, including 1,1-DCE and HCFC-141b, were detected at concentrations exceeding groundwater quality standards approximately 8,000 feet (1.5 miles) south of the Site.

93. Groundwater at the Site also contains metals of concern, including, but not limited to, aluminum, antimony, arsenic, beryllium, chromium, cobalt, iron, lead, manganese, nickel, and sodium, all of which have been detected on-Site at levels exceeding groundwater quality standards. Concentrations of aluminum in groundwater at the Site have been detected at levels up to 220,000 ppb, three orders of magnitude above the groundwater quality standard of 200 ppb.

94. Solvay has applied for two classification exception areas ("CEAs") for the groundwater underneath and off the Site due to the contamination exceeding groundwater quality standards and the need for remediation to protect human health and the environment. CEAs provide notice that the constituent standards for a given aquifer classification are not or will not be met in a localized area and suspend the designated uses of the groundwater in the affected area for the term of the CEA.

95. One of Solvay's proposed CEAs would be for contaminants found in the historic fill making up the DSA, and would include such contaminants as aluminum, antimony, arsenic, beryllium, cadmium, iron, lead, chromium, cobalt, nickel, sodium, and manganese. The total area of the historic fill CEA is 113 acres.

96. The second of Solvay's proposed CEAs is for Site-related releases that have contaminated groundwater resources on-Site and extending beyond the boundaries of the Site. This CEA would include contaminants such as carbon tetrachloride, 1,1,1-trichloroethane, 1,1,1-trifluoroethane, 1,1-dichloroethane, 1,2-dichloroethane, HCFC-141b, HCFC-143a, HCFC-142b, benzene, trichloroethane, vinyl chloride, methyl tertiary butyl ether and pH. The proposed boundary of this CEA covers approximately 303 acres. At its maximum, the groundwater contaminant plume boundary

for this CEA is approximately 10,000 feet (i.e., nearly two miles) long and 1,681 feet (i.e., nearly one-third of a mile) wide.

*ii. **Soils Contamination***

97. AOCs and SWMUs throughout the Site have been contaminated with total petroleum hydrocarbons, metals, VOCs, PCBs, SVOCs, and other pollutants.

98. In the 1990s, Solvay excavated approximately 1,100 tons of soil due to on-Site PCB contamination.

99. Soil samples taken at the Site in 2001 detected 1,1-DCE and 1,1,1-TCA above the reporting limits. 1,1-DCE was detected in 11 of the 26 soil samples taken and 1,1,1-TCA was detected in 17 of the 26 samples taken.

100. In 2014, Solvay detected contaminants on the Department's Extractable Petroleum Hydrocarbon List at levels exceeding applicable standards in two newly identified AOCs.

*iii. **Surface Water and Sediment Contamination***

101. Surface waters on and off-Site have been contaminated by hazardous substances and pollutants. Sampling of surface waters and sediments has revealed contamination in the open water drainage ditch north of the MPA and in the Delaware River. The main contaminants of concern are metals, such as manganese, cadmium, and antimony.

C. PFAS COMPOUNDS

a. OVERVIEW

102. PFAS are a family of chemical compounds containing fluorine and carbon atoms. PFAS have been used for decades to produce household and commercial products that are heat resistant, stain resistant, long lasting, and water and oil repellant. The PFAS family of chemicals is entirely manmade and does not occur in nature.

103. PFNA and PFOA, which are among the contaminants that are the subject of this action, are long-chain perfluoroalkyl carboxylic acids. PFNA has a totally fluorinated nine-carbon chain and a carboxylic acid functional group, while PFOA has a totally fluorinated eight-carbon chain and a carboxylic acid functional group. Although these chemicals have been used and discharged for decades, their threat to the public health and the environment has only relatively recently been revealed to regulators and the public.

104. PFNA and PFOA have characteristics that cause extensive and persistent environmental contamination. Specifically, they are mobile and persistent.

105. While these compounds may partition to soil depending on soil characteristics, they are mobilized by the percolation of rainwater and the rise of groundwater tables. Once soluble in groundwater, they can readily be transported great distances.

106. And they are persistent in that they do not biodegrade or chemically degrade in the environment and are not removed by conventional treatment systems for drinking water.

107. In short, once PFNA and PFOA are discharged or otherwise released onto land or into the air or water, they migrate through the environment and into groundwater, do not degrade, and are difficult and costly to remove.

108. PFNA and PFOA also bioaccumulate, bio-persist, and bio-magnify (the last of which refers to the increasing concentration of a chemicals in organisms at higher levels in the food chain) in people and other organisms.

109. PFNA and PFOA contamination in drinking water presents a serious threat to public health. Exposure to extremely low concentrations of PFNA and PFOA in drinking water results in increased concentrations in human blood serum that persists for years after exposure ends. PFNA persists in human blood serum even longer than PFOA. Humans can also be exposed through other routes, including consumption of contaminated foods (such as fish).

110. Exposure to PFAS in both humans and animals has been linked to several diseases.

111. PFOA exposure to humans is linked to increased cholesterol and liver enzymes, decreases in antibody response to vaccines, pregnancy-induced hypertension and preeclampsia, decreased birthweight, and testicular and kidney cancer.

112. While PFNA is similar in toxicity to PFOA, it is more bioaccumulative and, in animal studies, it is more potent (i.e., effects occur at lower doses) and some effects are more severe and persistent than for PFOA. In laboratory animals, PFNA is toxic to the liver, kidney, immune system, and male and female reproductive systems, and fetal and neonatal exposures cause persistent developmental delays in offspring. Based on this data and other sources, the Department has developed health-based standards to protect humans.

113. Notably, fetuses and newborns are particularly sensitive to PFNA and PFOA's toxicity. Further, exposures to newborns are higher (compared to other subpopulations) through breastmilk or prepared formula when drinking water is contaminated with PFNA and/or PFOA.

114. New Jersey is one of the states most impacted by PFNA in the country. During the U.S. EPA's third Unregulated Contaminant Monitoring Rule conducted during 2013-2015, PFNA was reported at

20 ppt or higher in 2.3 percent of the New Jersey public water systems tested, a significantly higher frequency than the national average of 0.2 percent.

115. Further, the levels of PFNA found in the Borough of Paulsboro's water supply in 2014 were higher than had ever been reported in drinking water elsewhere in the United States or the world.

116. The State has thus taken the lead in addressing the impact of PFNA contamination to public health and the environment. New Jersey has developed health-based standards for PFNA in drinking water and groundwater, including a maximum contaminant level ("MCL") in 2018. New Jersey's adoption of the MCL for PFNA made it the first state to adopt an MCL for any PFAS.

117. While the Department has sought to take necessary action to protect the public health, Solvay – individually and in concert with other major chemical companies and trade associations – has resisted these efforts.

118. Indeed, before the State and its citizens understood the scope of PFNA contamination in New Jersey, Solvay was messaging to the EPA that PFNA was not a risk to the general public, as further detailed below.

119. In 2003, the EPA initiated an enforceable consent agreement process concerning PFOA and related chemicals. As part of that process, Solvay and others formed the "APFN Work Group," which was a smaller working group within "the Fluoropolymer Manufacturers Group" coordinated by The Society of the Plastics Industry, Inc. ("SPI"). APFN, or ammonium perfluorononanoate, refers to the ammonium salt of PFNA, the form in which PFNA is manufactured.

120. The APFN Work Group had three members, Asahi Glass Co., Ltd., Arkema, and Solvay. According to the APFN Work Group's presentation to EPA on January 16, 2003, its members were "producers and users of APFN," and it was "[f]ormed to evaluate APFN as compared to APFO."

121. In the same presentation, the APFN Work Group provided the following summary to EPA to downplay any significant concerns regarding PFNA: First, the group suggested that PFNA would not be a widespread problem because "APFN [is] not widely used," and "[l]imited mostly to PVDF manufacturing." Second, the group stated that, at those limited places where APFN is used, "[s]ignificant reduction[s] in potential exposure sources [were] planned," including "[e]missions at fluoropolymer plants." Finally, the group stated that "[t]oxicity and environmental effects work" on PFNA was still "progressing."

122. During the following years, Solvay (through SPI and in conjunction with Asahi and Arkema) would submit toxicity studies for PFNA, and Solvay would also submit monitoring data on the presence of PFNA in its workers' blood to EPA. Solvay and others took the position in their submission to EPA that none of these data indicated a substantial risk of injury to human health or the environment.

123. No further action was taken at the federal level on PFNA. While the EPA organized the 2010/2015 PFOA Stewardship program, through which Solvay and other major users of PFOA and/or higher homologues, including PFNA, voluntarily agreed to reduce discharges and emissions, the risk to human health and the environment from existing PFNA contamination went unaddressed.

124. The Department was required to confront an unprecedented PFNA contamination problem.

125. On January 17, 2014, in response to the Borough of Paulsboro's Mayor's request for assistance, the Department provided a letter to Paulsboro focused on exposure of infants and children to PFNA. The letter stated that "out of an abundance of caution, the New Jersey Department of Health advises that residents use bottled water for powdered or concentrated infant formula and all other drinking uses for children up to the age of one year until the situation is resolved."

126. Thereafter, the Department began to develop further measures to respond to PFNA contamination.

127. On March 14, 2014, the Department posted an interim specific groundwater quality standard (a level applicable to groundwater used for drinking water that is health-based, and above which would pose an unacceptable human health risk from exposure through consumption) of 17 ppt, which, consistent with other groundwater criteria, was rounded one significant figure to 20 ppt. The interim groundwater standard was intended to be protective for chronic (lifetime) drinking water exposure.

128. Additionally, on March 21, 2014, the Commissioner requested that the New Jersey Drinking Water Quality Institute ("DWQI") – an institute charged under New Jersey law with developing MCLs for contaminants and recommending those standards to the Department for adoption – recommend an MCL for PFNA.

129. Pursuant to the Commissioner's request, DWQI set out to develop an MCL, and as part of that process released a draft support document for a health-based MCL, dated March 31, 2015. In response, Solvay submitted comments stating there could not be any health-based standard for PFNA. Solvay's consultants provided the comment that "it is premature to develop a maximum contaminant level (MCL) or any health-based standard for PFNA at this time."

130. DWQI continued its work, and on July 1, 2015, after public comment and a unanimous vote, DWQI recommended an MCL for PFNA of 13 ppt.

131. On November 25, 2015, the Department also updated its interim specific groundwater quality standard to 13 ppt, which was rounded one significant figure to 10 ppt.

132. On August 7, 2017, the Department, consistent with DWQI's recommendation, proposed an MCL for PFNA of 13 ppt.

133. Solvay responded by opposing the MCL, as it had done with all of the Department's other draft and proposed health-based standards for PFNA. On October 6, 2017, Solvay submitted comments stating that the MCL was not based on the "best information available," and that the MCL should simply be "withdrawn."

134. Additionally, Solvay moved against the interim groundwater quality standard for PFNA. Solvay, Arkema, and the Chemistry Council of New Jersey filed an action challenging the Department's authority to issue the interim standard. On December 19, 2017, the Appellate Division provided the Department with thirty days to begin the process of setting a permanent groundwater quality standard, which it did.

135. On January 16, 2018, the Department adopted a PFNA groundwater quality standard of 10 ppt, and also added PFNA to the Spill Act's list of hazardous substances.

136. On September 4, 2018, the Department adopted a PFNA MCL of 13 ppt, and concurrently amended the PFNA groundwater quality standard to 13 ppt.

137. Since the Department has adopted its MCL for PFNA, several other states have adopted their own MCLs for PFNA, all within the range of or lower than New Jersey's.

138. Similarly, the Department adopted standards for PFOA. On March 31, 2020, the Department adopted a PFOA MCL of 14 ppt, a PFOA groundwater quality standard of 14 ppt, and added PFOA to the Spill Act's list of hazardous substances.

139. Although Solvay stopped using products containing PFNA and PFOA in its manufacturing processes at the Site in 2010, Solvay has used - and continues to use - "replacement" PFAS products at the Site, the identities of which it claims are confidential. According to the article published in Science in 2020, some of the "replacement" PFAS compounds that Solvay is likely using at the Site are ClPFPECAs.

140. Like PFNA and PFOA, ClPFPECAs are PFAS compounds.

141. Upon information and belief, ClPFPECAs pose risks to public health and the environment similar to the risks posed by PFNA and PFOA. The European Chemicals Agency has classified the ClPFPECA congeners identified by Wang et al. (2013) as "Solvay's product" as a substance that "is fatal if swallowed, is fatal in

contact with skin, causes severe skin burns and eye damage, causes damage to organs through prolonged or repeated exposure and is toxic to aquatic life with long lasting effects."

142. The Department has previously expressed concern regarding this Solvay product. In January 2019, the Department commented to EPA:

Solvay's product consisting of congeners with >7 carbons is larger than GenX, a 6-carbon perfluorinated ether . . . [T]he data now available show that GenX causes toxicity at relatively low doses, and USEPA concluded that GenX is more potent than PFOA in mice, the most sensitive animal species for both compounds. Since toxicity and bioaccumulative potential of PFAS generally increase with longer carbon chain length, the data for GenX showing multiple non-carcinogenic and carcinogenic effects suggest that the longer chain-length polyether PFAS, such as the Solvay product, may similarly cause toxicological effects of concern.

143. Long-chain perfluoroether carboxylates generally similar to Solvay's product have been found to bioaccumulate in humans from exposure through drinking water in Wilmington, North Carolina. The California Department of Toxic Substances Control has indicated that perfluoroether carboxylic acids are "recalcitrant to degradation and extremely persistent in the environment" and "may have similar or higher toxic potency than the longer-chain [perfluoroalkyl] acids, like PFOA] they are replacing."

b. PFAS USAGE AND DISCHARGES AT THE SITE

144. Beginning in approximately 1985 and continuing through today, PFAS compounds have been used as processing aids in the manufacture of Arkema and Solvay products made at the Site, including but not limited to PVDF and Tecnoflon® fluoroelastomers.

145. Surflon® was used at the Site as a processing aid in the manufacture of PVDF and other products between approximately 1985 and 2010, first by Arkema from approximately 1985 to 1990 and then by Solvay from approximately 1990 to 2010.

146. Surflon® is a commercial mixture of perfluorinated carboxylic acids composed primarily (approximately 79%) of PFNA. In addition to PFNA, Surflon® contains other long chain perfluorinated carboxylic acids including PFUnDA which has 11 carbons, perfluorotridecanoic acid ("PFTrA") which has 13 carbons, PFOA which has 8 carbons, perfluorodecanoic acid which has 10 carbons, and perfluorododecanoic acid which has 12 carbons.

147. AGC, Inc. (f/k/a Asahi Glass Co., Ltd.) manufactured the Surflon® used at the Site. Solvay used Surflon® at the Site until 2010 despite AGC, Inc. discontinuing production of Surflon® in 2008.

148. Solvay has reported using 275,730 lbs of Surflon® at the Site between 1991 and 2010. According to Solvay, 86.6 percent of the Surflon® used at the Site between 1991 and 2010 was released

into the environment through emissions to water and air, including 164,408 lbs discharged to water and 73,632 lbs emitted to the atmosphere. Solvay also reported disposing of approximately two percent of Surflon® used at the Site during this time at unidentified landfills.

149. Upon information and belief, releases of Surflon® from the Site to the water and atmosphere occurred prior to 1991.

150. Solvay also used sodium perfluorooctanoate ("NaPFO"), the sodium salt of PFOA, as a processing aid in the manufacture of PVDF between 1995 and 2003.

151. The 3M Company ("3M") manufactured the NaPFO used at the Site. Solvay continued to use NaPFO at the Site until 2003 despite 3M discontinuing production of NaPFO in 2002.

152. Solvay has reported using 23,241 lbs of NaPFO at the Site between 1995 and 2003. According to Solvay, approximately 97 percent of the NaPFO used at the Site between 1995 and 2003 was released into the environment through emissions to water and air, including 20,682 lbs discharged to water and 1,861 lbs emitted to the atmosphere. Solvay also reported disposing of approximately two percent of NaPFO used at the Site during this time at unidentified landfills.

153.

154. Although Solvay ceased using products containing PFNA and PFOA in its manufacturing processes at the Site in 2010, it has continued to discharge wastewater containing these and other PFAS compounds into the Delaware River. These discharges continue through today.

155. Further, Solvay has used "replacement" PFAS compounds at the Site as processing aids in the manufacture of PVDF and other products. Solvay began using these products before it stopped using either NaPFO or Surflon®, and it continues to use, emit, and discharge these products at the Site today. Solvay has reported discharging and emitting these products from the Site to New Jersey's air and water.

156. Solvay has claimed that the specific identities of the "replacement" PFAS products that it is using at the Site are confidential. According to the article published in Science in 2020, some of these products likely are ClPFPECAs. Like PFNA and PFOA, ClPFPECAs have been identified in the environment in Gloucester and Salem Counties.

c. PFAS INVESTIGATION ON AND OFF-SITE

157. Between 2007 and 2009, the DRBC conducted a multi-year survey of contaminants of emerging concern in the Delaware River. The survey found PFNA in the Delaware River water up to 976 ppt near the Site. This concentration of PFNA was higher than had

been reported in surface water anywhere else in the United States, or worldwide.

158. In 2009, the Department sampled 29 public community water system wells across the State for 10 different PFAS, including PFNA. The sampling detected PFNA in a PWS in Paulsboro, about two miles from the Site, at a level of 96 ppt.

159. Between 2010 and 2013, PFNA was detected in a New Jersey American Water public water system (Logan Birch Creek) located approximately 10 miles west-southwest from the Site at levels up to 72 ppt.

160. In September 2013, the Department required Solvay to test its effluent discharges to the Delaware River for the presence of PFAS once a month for four months. Solvay reported concentrations of PFNA up to 14,000 ppt and concentrations of PFOA up to 1,600 ppt.

161. In November 2013, Solvay submitted its first PFAS work plan for the Site to the Department. Solvay proposed to conduct limited sampling of seven public water systems, groundwater from on-Site monitoring wells, and surface water and sediments in the Delaware River, and to conduct air dispersion and deposition modeling of historic PFAS emissions from the Site.

162. The Department warned Solvay in a March 6, 2014 letter that "the sampling and modeling proposed . . . are not sufficient

to fully characterize the fate and occurrence of [PFAS] discharged from the site."

163. In May 2014, Solvay also proposed a plan to conduct limited sampling of private potable wells in West Deptford and portions of East Greenwich Townships.

164. The Department warned Solvay that the plan was too limited, and in a letter dated June 12, 2014, the Department approved the plan only as an "initial step in the determination of the extent of [PFAS] contamination in private potable wells."

165. Beginning in November 2013, Solvay conducted quarterly sampling of a limited number of public water systems in seven municipalities near the Site over a one-year period. PFNA concentrations at public water systems in five municipalities exceeded 20 ppt (West Deptford, East Greenwich, Greenwich, Woodbury, and Paulsboro). The two most contaminated public water systems were in Paulsboro, where PFNA was detected up to 150 ppt, and in Woodbury, where PFNA was detected up to 120 ppt.

166. In March and April 2014, Solvay sampled groundwater at monitoring wells on and off-Site. At on-Site monitoring wells, sampling revealed PFNA at concentrations of up to 482,000 ppt and PFOA at concentrations of up to 16,200 ppt. PFNA and PFOA were also detected in samples taken from off-Site monitoring wells. For

example, Solvay detected PFNA at a concentration of 2,680 ppt at an off-Site well approximately 1.3 miles from the Site.

167. In August 2014, Solvay collected limited samples of surface water, sediment, and pore water (i.e., water extracted from sediment samples) from the Delaware River. PFNA and PFUnDA were detected in more than half of the locations from which sediment samples were taken. PFNA and PFUnDA were also detected in pore water samples.

168. In 2014 and 2015, Solvay sampled 98 private potable wells near the Site. Twenty-five wells had PFNA concentrations above 13 ppt, with a maximum measured concentration of 1,500 ppt.

169. In March 2015, the Department required Solvay to test its effluent discharges to the Delaware River for the presence of PFAS once a month on a continuing basis. Since that time, Solvay has reported concentrations of PFNA in its effluent discharges as high as 14,000 ppt and concentrations of PFOA as high as 1,600 ppt.

170. Despite evidence of widespread PFAS contamination associated with the Site from multiple contaminant pathways, Solvay submitted a report to the Department in March 2015 that unilaterally concluded that no additional investigation of any public water system wells or private potable wells was needed in the area around the Site. Solvay also informed the Department that

it did not plan to conduct any additional investigation of surface water and sediment in the Delaware River, or to perform any additional air modeling.

171. At approximately the same time, on April 2, 2015, Solvay placed an advertisement in the *South Jersey Times* and issued a press release announcing that it "ha[d] completed the elements of the work plan developed with the New Jersey Department of Environmental Protection (NJDEP) and the U.S. Environmental Protection Agency (EPA)."

172. The Department informed Solvay in a letter dated July 31, 2015 that Solvay had not completed its investigation and that the company's conclusions were premature because it had not, among other things, evaluated the surface water to groundwater contaminant pathway and had not included scenarios and assumptions properly supported by peer-reviewed literature in its air dispersion modeling. The Department told Solvay to develop a conceptual site model that would evaluate all data collected to date from all media and evaluate all potential contaminant migration pathways.

173. In September 2015, Solvay submitted a second PFAS work plan to the Department for additional limited sampling and investigation, focused on sampling of groundwater at monitoring wells on and off-Site, sampling of soil on-Site, and sampling of

surface water and sediments from the Main Ditch and Little Mantua Creek, adjacent to the Site.

174. The Department again advised Solvay in a March 7, 2016 letter that its proposed investigation was inadequate. The Department wrote, "[Solvay's] focus remains on direct discharges/delineation from the facility and not the longer range transport of contaminants that are the concern of the Department, such as the Delaware River surface water to groundwater pathway that may explain the presence of PFASs so far from the direct facility discharges." The Department again instructed Solvay to develop a conceptual site model for the Site.

175. Following the Department's establishment of an interim specific groundwater quality standard for PFNA of 10 ppt in November 2015, Solvay submitted Immediate Environmental Concern ("IEC") Response Action Forms in December 2015, January 2016, and December 2016 identifying a limited area of potable wells impacted by PFNA downgradient and in close proximity to the Site.

176. The Department notified Solvay in a letter dated March 8, 2016 that it had failed to identify and address all receptors impacted by discharges of PFNA from the Site, including investigating the full extent of groundwater contamination and providing treatment on private wells impacted by PFNA. The Department wrote, "Since Solvay has a known discharge of [PFAS]

compounds extending off site via groundwater and surface water, Solvay is required to proactively address all impacted receptors by way of any migration pathway."

177. To date, Solvay has not expanded the limited geographic area of potable wells impacted by PFNA that it identified in its December 2016 IEC reporting.

178. In 2015 and 2016, Solvay sampled groundwater monitoring wells on-Site and in a limited area off-Site. PFNA was detected in samples taken from almost every well at concentrations above 13 ppt, often by many orders of magnitude.

179. From May through August 2016, Solvay conducted soil sampling on and off-Site. PFNA was detected in on-Site soil samples at up to 2,400 ppb, and in off-Site soil samples up to 2.6 ppb.

180. In October 2016, Solvay sampled for and detected PFNA, PFOA, and PFUnDA in surface water, sediment, and pore water collected from the Main Ditch and Little Mantua Creek. PFNA was detected as high as 27 ppt in surface water, 7.9 ppb in sediment, and 940 ppt in pore water. PFUnDA was detected as high as 4.9 (estimated) ppt in surface water, 24 ppb in sediment, and 110 ppt in pore water.

181. In 2018, Solvay conducted a limited investigation of groundwater contamination off-Site to the south-southeast of the Site. Groundwater sampling conducted in September 2018 in this

area detected PFNA above 13 ppt in all sample locations. Concentrations of PFNA ranged from 45.1 ppt to 4,300 ppt.

182. In December 2019, the Department again informed Solvay that its investigation of PFAS contamination associated with the Site was incomplete and inadequate.

183. First, the Department identified multiple lines of evidence showing that PFAS discharges from the Site to the Delaware River between 1985 and 2010 caused widespread groundwater contamination around and distant from the Site. Due to the tidal nature of the Delaware River and the fact that the Delaware River recharges the PRM aquifer, PFAS discharged at the Site likely migrated both down river and up river into nearby tributaries, moved horizontally and downward through leaky confining units into the deeper aquifer system, and contaminated groundwater at locations not directly downgradient of the Site, including at locations proximal to the Delaware River and tidally influenced tributaries.

184. Second, the Department presented evidence to Solvay demonstrating that Solvay's emission of more than 70,000 lbs of Surflon® from air emission stacks at the Site likely contributed to soil contamination many miles from the Site, at far greater distances than predicted by Solvay's model.

185. Third, Department responded to Solvay's repeated attempts to point to other sources as the source of PFNA contamination in Gloucester County. While the activities pointed to by Solvay occur across New Jersey, the elevated PFNA levels found in the area surrounding the Site have not been detected elsewhere in New Jersey. There is no more concentrated finding of PFNA in the State as at and around the Solvay Site, where Solvay has reported that it used and released Surflon® - a product primarily consisting of PFNA - for decades. Further, while other activities may increase the presence of PFAS in the environment, PFNA would not be expected to be the dominant PFAS found in the environment from those activities; other PFAS would be expected to be found in higher concentrations. The PFNA-PFUnDA-PFTrA ratio in Surflon® is distinct, and it is consistent with the ratio of PFAS found in environmental media on and off-Site.

186. Finally, the Department again directed Solvay to investigate the surface water to groundwater contaminant pathway, to develop a conceptual site model, to conduct additional sampling of environmental media, and to resubmit an air deposition model that would fully address the air pathway from the Site as a source for off-Site deposition of PFAS.

187. Notwithstanding Solvay's repeated failures to fully investigate or address the PFAS contamination associated with the Site, the Department has taken multiple actions to address the contamination.

188. For example, the Department sampled 284 private potable wells in Gloucester and Salem Counties between January 2015 and July 2018. PFNA was detected in 42 wells at concentrations above the MCL of 13 ppt. The Department offered and provided treatment or an alternate water supply to all private well owners with PFNA detected at levels exceeding the MCL.

189. Since 2017, the Department has also collaborated with the DRBC and EPA's Office of Research and Development ("ORD") to investigate PFAS contamination related to the Site in various environmental media, including soils, vegetation, surface water, sediments, and groundwater. For example, the Department collected tidal surface water samples in the Delaware River upstream and downstream of the Site in 2017, including into the back reaches of tidal tributaries and creeks. Analysis of the samples performed by ORD revealed the presence of PFNA in surface water at concentrations up to 111 ppt in tidal tributaries.

190. Further, since 2014, the Department has installed Point of Entry Treatment systems ("POETs") at 40 properties in Gloucester County to address PFNA contamination associated with the Site. The

Department has installed POETs at an additional 30 properties in Gloucester and Salem Counties to address PFOA contamination associated with the Site.

191. Although Solvay stopped using Surflon® at the Site in 2010, it continues to use, discharge, and emit potentially harmful PFAS compounds into New Jersey's environment.

192. In April 2019, Solvay reported to the Department that it has discharged and emitted "replacement" PFAS products into New Jersey's environment for more than two decades, and that it continues to use, emit, and discharge these compounds today.

193. Solvay informed the Department in June 2019 that it had begun "expedited" development of analytical methods and standards capable of detecting and quantifying these pollutants in environmental media. But, to date, despite the Department's multiple requests, Solvay has failed to share publicly available technical grade analytical standards with the Department which would enable laboratory instruments to quantify the "replacement" PFAS products in the environment.

194. Analysis of soil and water samples by EPA has demonstrated that the "replacement" PFAS products Solvay is using likely include ClPFPECAs, and that these products have migrated off-Site.

195. For example, in 2020, ORD reported to the Department that it had detected ClPFPECAs in water samples collected from private wells near the Site.

196. Also in 2020, John W. Washington of ORD and his co-authors published an article in Science entitled "Nontargeted mass-spectral detection of chloroperfluoropolyether carboxylates in New Jersey soils." The authors reported that they had detected ClPFPECAs in soil samples collected in New Jersey in the dominant downwind direction from the Site, as far as 150 km from the Site.

d. **PFAS CONTAMINATION ON AND OFF-SITE**

197. In summary, investigations conducted to date establish that the use and release of PFAS compounds at the Site have caused and continue to cause widespread contamination of New Jersey's natural resources. Based on investigations conducted to date, injuries to natural resources include, but not are limited to, impacts to groundwater, soils, surface water and sediments, and biota. Because investigations conducted thus far cannot provide a full understanding of the off-Site PFAS contamination that operations at the Site have caused, the Department expects that further investigations will reveal additional injuries to natural resources.

i. Groundwater Contamination

198. Sampling and monitoring conducted at the Site and in the surrounding area have shown severe contamination of groundwater by PFNA, PFOA, and other PFAS compounds.

199. In New Jersey, PFNA has been detected as the primary PFAS compound in public supply wells in the two counties in the vicinity of the Solvay Site: Gloucester County - the County in which the Site is located - and the neighboring Camden County located to the northeast. PFNA has also been detected as a primary contaminant in private wells in Gloucester County.

200. The use and discharge of PFNA, PFOA, and other PFAS compounds at the Site has contaminated drinking water near and distant from the Site, including public water systems and private wells. As of March 19, 2019, out of the 400 private drinking water wells sampled as part of the potable well investigation associated with the Site, 83 wells - or 21 percent - required the installation of a POET for PFNA and/or PFOA.

ii. Soils Contamination

201. Sampling and monitoring conducted at the Site has shown high levels of contamination in on-Site soils by PFNA, PFOA, and other PFAS compounds. PFNA has also been detected in off-Site soil samples in the immediate vicinity of the Site.

202. As discussed, Solvay's emissions of PFAS compounds into the atmosphere via the Site's air emission stacks likely contributed to soil contamination miles from the Site as reported in Science in 2020.

*iii. **Surface Water & Sediment Contamination***

203. Releases and discharges of PFAS compounds at the Site have contaminated surface water and sediment in surface water bodies including, but not limited to, the Delaware River, Mantua Creek, Little Mantua Creek, Main Ditch, Woodbury Creek, Repaupo Creek, Pargey Creek, Still Run, and several non-tidal ponds.

204. In 2007, during the period of time during which Solvay was using and discharging Surflon® at the Site, PFNA was detected in surface water samples collected from the Delaware River downstream of the Site at up to 976 ppt. PFUnDA, another component of Surflon®, was also detected in locations where PFNA was found to be elevated.

205. In 2015 and 2016, the Department collected surface water samples from eleven waterways across the State. The highest levels of PFNA in any of the samples were found in Woodbury Creek, near the Site.

206. PFNA, PFOA, and PFUnDA were also detected in surface water collected by Solvay from the Main Ditch and Little Mantua Creek in October 2016.

207. Analysis of surface water samples collected by the Department in 2017 in the Delaware River upstream and downstream of the Site, including into the back reaches of tidal tributaries and creeks, revealed the presence of PFNA at concentrations up to 111 ppt in tidal tributaries.

208. Multiple lines of evidence demonstrate that PFAS compounds discharged at the Site into adjacent surface water bodies, including the Delaware River, migrated into nearby tributaries, their sediments, and then into groundwater near and distant from the Site, including at locations not directly downgradient of the Site.

iv. Biota

209. PFAS compounds released and discharged at the Site have contaminated animal and plant life on and off-Site.

210. For example, the DRBC sampled fish tissue in the Delaware River between 2007 and 2009. PFNA was detected in white perch and channel catfish downstream of the Site. PFUnDA, another component of Surflon® that is more bioaccumulative in fish than PFNA, was detected in even higher concentrations than PFNA in both white perch and channel catfish fish tissue. Notably, PFNA was not detected in fish tissue samples collected in 2012, after Solvay had ceased using Surflon® at the Site.

211. As another example, the Department collected fish tissue from eleven waterways across the State in 2015 and 2016. PFNA was only detected in fish tissue collected from Woodbury Creek and Fenwick Creek, a downstream Delaware River tributary. Further, the highest levels of PFUnDA detected in any of the samples were collected from Woodbury Creek.

V. PFAS DIRECTIVE AND NON-COMPLIANCE

212. On March 25, 2019, the Department issued the PFAS Directive to Solvay and other major users of PFAS in New Jersey.

213. With respect to Solvay, the PFAS Directive recited that, as of March 19, 2019, out of the 400 wells sampled as part of the potable well investigation around the Site, 83 wells - or 21 percent - required installation of a POET system for PFNA or PFOA.

214. The PFAS Directive recited that, as of March 4, 2019, the Department had incurred at least \$3,105,084.91 to investigate, monitor, test, treat, remediate, clean up and remove PFNA and PFOA from the area surrounding the Site, and that the Department continued to incur costs associated with PFNA and PFOA there on a daily basis.

215. The PFAS Directive required Solvay, within 30 days after receipt, to reimburse the Department for its previously incurred costs of \$3,105,084.91.

216. The PFAS Directive also required Solvay to assume responsibility for operation and maintenance of a substantial number of POETs installed by the Department to address PFNA and PFOA associated with the Site by taking action according to expedited site-specific timeframes.

217. Solvay has not provided the full reimbursement required in the PFAS Directive; nor has it assumed responsibility for operations and maintenance of all of the POETs as required by the PFAS Directive.

VI. DEFENDANTS' FAILURE TO COMPLY WITH THE DEPARTMENT'S TECHNICAL REQUIREMENTS FOR SITE REMEDIATION

218. Because Defendants are persons "in any way responsible" pursuant to the Spill Act, they are required to comply with the Department's Administrative Requirements for the Remediation of Contaminated Sites ("ARRCS") rules.

219. Pursuant to the Department's Technical Requirements for Site Remediation, N.J.A.C. 7:26E-1.3 and 7:26E-1.5(a) (the "Technical Requirements"), as a person subject to the requirements of the ARRCS rules, Defendants are required to conduct a remediation of contaminants discharged at the Site in accordance with the Technical Requirements.

220. Pursuant to N.J.A.C. 7:26E-4.3(a)(4), 7:26E-5.1(b) and 7:26E-5.1(d)(1) and (4) of the Technical Requirements, the Defendants are required to, inter alia, (1) delineate the

horizontal and vertical extent of all groundwater contamination to the groundwater remediation standards, and (2) remediate such contaminants in a manner that is "protective of public safety, health and the environment" and "complies with all applicable remediation standards." Defendants have failed to do so by not delineating the full extent of groundwater contamination caused by their discharges or remediating such contamination.

221. Moreover, although Defendants are required to do so, they have failed to investigate and remediate all contaminants, including but not limited to PFNA and PFOA, to applicable standards and to post a remediation funding source in connection with same.

VII. SOLVAY'S ACTUAL MALICE / WANTON AND WILLFUL DISREGARD

222. Solvay, as detailed above, committed acts and omissions with respect to its use and discharge of PFNA, PFOA, and other PFAS, including but not limited to its "replacement" PFAS products, with actual malice and/or with a wanton and willful disregard of persons who foreseeably might be harmed by those acts or omissions.

223. Solvay's conduct was driven by its desire to profit from the sale of its products and avoid the expense of properly disposing of and cleaning up PFAS, despite the harm it would cause New Jersey's citizens and the environment, through contamination of drinking water, groundwater, surface water, and other natural resources.

224. Therefore, Solvay engaged in especially egregious and outrageous conduct and should be punished so as to discourage the company from engaging in similar misconduct in the future.

VIII. SCOPE OF ACTION

225. Through this action, Plaintiffs are not seeking damages, remediation, or restoration with respect to any contamination related to AFFF, which is a product that contains PFAS compounds and is not within the scope of this litigation. Plaintiffs bring this action for contamination originating from Defendants' industrial operations, waste disposal practices, emissions, releases, and discharges at and from the Site, and do not assert claims or seek damages related to the use of AFFF.

226. Likewise, and notwithstanding anything to the contrary herein, Plaintiffs are not asserting claims or seeking costs or damages regarding the remediation or restoration of the Delaware River at this time. While Plaintiffs are seeking an order requiring Defendants to perform or pay all costs necessary to investigate, locate, and assess all contamination that has been emitted, released, or discharged from the Solvay Site, including emissions, releases, and discharges at or from the Site to the Delaware River, Plaintiffs are explicitly reserving their claims to remediate and restore the Delaware River, itself, until such time as the investigation work is more fully complete. However,

any contamination emanating from or related to the Site that has migrated to and/or impacted other natural resources (e.g., potable water) via a pathway that includes the Delaware River is within the scope of this action.

FIRST COUNT
(Spill Act)

227. Plaintiffs repeat each allegation of Paragraphs 1 through 225 above as though fully set forth in its entirety herein.

228. Each Defendant is a "person" within the meaning of N.J.S.A. 58:10-23.11b.

229. The discharge of hazardous substances is prohibited. N.J.S.A. 58:10-23.11c.

230. Many of the contaminants of concern discharged at the Site are hazardous substances as defined in N.J.S.A. 58:10-23.11b, including, but not limited to, PFNA and PFOA.

231. Except as otherwise provided in N.J.S.A. 58:10-23.11g(12), which is not applicable here, any person who discharges a hazardous substance, or is in any way responsible for any hazardous substance, shall be liable, jointly and severally, without regard to fault, for all cleanup and removal costs no matter by whom incurred. N.J.S.A. 58:10-23.11g(c).

232. Because each Defendant discharged hazardous substances and is in any way responsible for hazardous substances pursuant to N.J.S.A. 58:10-23.11g, each is a "person responsible for conducting the remediation" pursuant to N.J.A.C. 7:26C-1.3.

233. The person responsible for conducting the remediation is required to perform remediation consistent with the Technical Requirements for the Remediation of Contaminated Sites, N.J.A.C. 7:26E-1.5, and must ensure that each remedial action is protective of public health, safety, and the environment, N.J.A.C. 7:26E-5.1(d). Defendants have failed to do so.

234. The Department and the Administrator have incurred, and will continue to incur, costs and damages, including lost use and value, costs of restoration and replacement for natural resources of this State that have been, or may be, injured as a result of discharges at the Site, and assessment costs.

235. The costs and damages the Department and the Administrator have incurred, and will incur, associated with discharges at the Site, are "cleanup and removal costs" within the meaning of N.J.S.A. 58:10-23.11b.

236. Solvay and Arkema, as dischargers of hazardous substances at the Site, are liable, jointly and severally, without regard to fault, for all cleanup and removal costs and direct and indirect damages, including lost use and value, costs of

restoration and replacement, and assessment costs, the Department and Administrator have incurred, and will incur, to assess, mitigate, restore, or replace any natural resource of this State that has been, or may be, injured as a result of the discharge of hazardous substances at the Site. N.J.S.A. 58:10-23.11g(c)(1).

237. Solvay and Arkema, as owners and/or operators of the Site at the time hazardous substances were discharged there, also are persons in any way responsible, and are liable, jointly and severally, without regard to fault, for all cleanup and removal costs and direct and indirect damages, including lost use and value, costs of restoration and replacement, and assessment costs the Department and Administrator have incurred, and will incur, to assess, mitigate, restore, or replace any natural resource of this State that has been, or may be, injured as a result of the discharge of hazardous substances at the Site. N.J.S.A. 58:10-23.11g(c)(1).

238. Further, Solvay, by not complying with the PFAS Directive issued to it, is strictly liable in an amount up to three times the cleanup and removal costs and damages, including lost use and value, costs of restoration and replacement, and assessment costs the Department and Administrator have incurred, and will incur, to assess, mitigate, restore, or replace any natural resource of this State that has been, or may be, injured as a

result of the discharge of hazardous substances at the Site.
N.J.S.A. 58:10-23.11.f.a(1).

239. Pursuant to N.J.S.A. 58:10-23.11u(a)(1)(a) and N.J.S.A. 58:10-23.11u(b), the Department may bring an action in the Superior Court for, inter alia, injunctive relief, N.J.S.A. 58:10-23.11u(b)(1); for its unreimbursed investigation, cleanup and removal costs, including the reasonable costs of preparing and successfully litigating the action, N.J.S.A. 58:10-23.11u(b)(2); for natural resource restoration and replacement costs, N.J.S.A. 58:10-23.11u(b)(4); and for any other unreimbursed costs or damages the Department incurs under the Spill Act, N.J.S.A. 58:10-23.11u(b)(5).

240. Pursuant to N.J.S.A. 58:10-23.11g(a) and (b), Defendants are also liable for lost income due to damage to natural resources destroyed or injured by discharges of hazardous substances at or from the Site, and loss of State tax revenue due to damage to property and natural resources proximately resulting from such discharges at the Site.

241. As a direct or indirect result of such violations, the Department and the Administrator have incurred, are incurring, and will continue to incur substantial costs including costs relating to:

- a. the investigation, cleanup, and removal of discharged hazardous substances;
- b. the restoration of natural resources contaminated by discharges of hazardous substances at the Site;
- c. the compensation of the citizens of New Jersey for the lost interim value and benefits of natural resources contaminated by discharges of hazardous substances at the Site; and
- d. the institution of corrective measures including monitoring of all impacted and potentially impacted public and private drinking water supplies for the presence of hazardous substances, provision of interim water supplies to residents whose water supplies have been contaminated due to such discharges, the establishment of acceptable sources of potable water to injured members of the public, and other necessary remedial actions, all at significant expense, loss, and damage.

242. The costs the Department and the Administrator have incurred, and will incur, are "cleanup and removal costs" within the meaning of N.J.S.A. 58:10-23.11b.

243. Pursuant to N.J.S.A. 58:10-23.11q, the Administrator is authorized to bring an action in the Superior Court for any unreimbursed costs or damages paid from the Spill Fund.

PRAYER FOR RELIEF

WHEREFORE, the Department and the Administrator request that this Court enter judgment against Defendants as follows:

- a. Preliminarily and permanently enjoining Solvay, requiring Solvay to cease all unpermitted discharges of hazardous substances, including PFAS, at or from the Site.
- b. Ordering Solvay to pay Plaintiffs' costs, including treble damages, pursuant to N.J.S.A. 58:10-23.11f and N.J.A.C. 7:26C-1.3, for Solvay's failure to fully comply with the 2019 PFAS Directive, including three times the following amounts: (i) \$2,049,640.91 as reimbursement for the then calculated past costs incurred, which remain unpaid; (ii) the costs to perform operation and maintenance of all of the POETs in West Deptford Township, Greenwich Township, Logan Township, Swedesboro Borough, and Oldman's Township, which are listed in the PFAS Directive and for which Solvay has refused to assume responsibility; (iii) the costs to sample and identify all potable wells within 500 feet downgradient, 500 feet

side gradient, and 250 feet up gradient of each of the impacted wells listed in the PFAS Directive for which Solvay has refused to assume responsibility; (iv) the costs to perform treatment and monitoring, in accordance with N.J.A.C. 7:26E-1.11, for all potable wells with documented exceedances of the 13 ppt PFNA MCL attributable to the Site and/or documented exceedances of the 14 ppt PFOA MCL attributable to the Site (including all wells impacted through a surface water to groundwater pathway, air deposition pathway, or a direct groundwater pathway); and (v) the costs to perform a proper remediation funding source review for all of the above, which Solvay failed to perform.

- c. Ordering each Defendant to reimburse the Department and Administrator, jointly and severally, without regard to fault, for all cleanup and removal costs and direct and indirect damages they have incurred, including lost use and value, costs of restoration and replacement for any natural resource of this State injured as a result of the discharge of hazardous substances at the Site, with applicable interest, and assessment costs;
- d. Finding each Defendant liable, jointly and severally, without regard to fault, for all future cleanup and

removal costs and direct and indirect damages, including lost use and value, costs of restoration and replacement for any natural resource of this State injured as a result of the discharge of hazardous substances at the Site, with applicable interest, and assessment costs;

- e. Compelling each Defendant, jointly and severally, without regard to fault, to perform any cleanup of the Site and contaminated areas off-site under direct oversight pursuant to N.J.S.A. 58:10C-27, and all other applicable laws and regulations;
- f. Compelling each Defendant, jointly and severally, without regard to fault, to fund the Department's performance of an assessment of any natural resource that has been, or may be, injured as a result of the discharge of hazardous substances at the Site, and compelling each Defendant to compensate the citizens of New Jersey, for the costs of restoration and replacement, including lost use and value of any injured natural resource;
- g. Ordering Defendants to pay for all compensatory damages for the lost value (including lost use) of the State's natural resources as a result of the contamination of such natural resources;

- h. Finding each Defendant liable, jointly and severally, without regard to fault, for loss of State tax revenue due to damage to real or personal property proximately resulting from a discharge;
- i. Finding that portions of the Solvay facility constitute conveyances used or intended for use in the willful discharge of one or more hazardous substances and that such portions of the facility are subject to forfeiture to the State pursuant to the provisions of N.J.S.A. 13:1K-1, et seq.
- j. Awarding the Department and the Administrator their costs and fees in this action pursuant to N.J.S.A. 58:10-23.11u(b)(2); and
- k. Awarding the Department and the Administrator interest and such other relief as this Court deems appropriate.

SECOND COUNT
(Water Pollution Control Act)

244. Plaintiffs repeat each allegation of Paragraphs 1 through 242 above as though fully set forth in its entirety herein.

245. Solvay and Arkema are each a "person" within the meaning of N.J.S.A. 58:10A-3.

246. Except as otherwise exempted pursuant to N.J.S.A. 58:10A-6(d) and (p), which are not applicable here, it is unlawful for any person to discharge any pollutant except to the extent the

discharge conforms with a valid New Jersey Pollutant Discharge Elimination System permit issued by the Commissioner pursuant to the WPCA, or pursuant to a valid National Pollutant Discharge Elimination System permit issued pursuant to the federal Water Pollution Control Act, 33 U.S.C. §§ 1251 to -1387. N.J.S.A. 58:10A-6(a).

247. The unauthorized discharge of pollutants is a violation of the WPCA for which any person who is the discharger is strictly liable, without regard to fault. N.J.S.A. 58:10A-6(a).

248. Solvay and Arkema have discharged, and Solvay continues to discharge, pollutants, including various PFAS, in violation of the WPCA.

249. The Department has incurred, and will continue to incur, costs as a result of the discharge of pollutants at the Site.

250. The Department also has incurred, and will continue to incur, costs and damages, including the costs of investigation to establish a violation at the Site, costs in removing, correcting or terminating the adverse effects upon water quality or public health due to violations at the Site, and compensatory damages and any other actual damages for any natural resource of this State that has been, or may be, lost or destroyed as a result of the discharge of pollutants at the Site.

251. The costs and damages the Department has incurred, and will incur, for the Site are recoverable by the Commissioner within the meaning of N.J.S.A. 58:10A-10(c)(2)-(4).

252. Solvay and Arkema discharged pollutants at the Site, which discharges were neither permitted pursuant to N.J.S.A. 58:10A-6(a), nor exempted pursuant to N.J.S.A. 58:10A-6(d) or N.J.S.A. 58:10A-6(p), and are liable, without regard to fault, for all costs and damages, including compensatory damages and any other actual damages for any natural resource of this State that has been, or may be, lost or destroyed as a result of the discharge of pollutants at the Site.

253. Pursuant to N.J.S.A. 58:10A-10(c), the Commissioner may bring an action in the Superior Court for injunctive relief, N.J.S.A. 58:10A-10(c)(1); for the costs of any investigation, inspection, or monitoring survey which led to establishment of the violation, including the costs of preparing and litigating the case, N.J.S.A. 58:10A-10(c)(2); any cost incurred by Plaintiffs in removing, correcting, or terminating the adverse effects upon water quality resulting from any unauthorized discharge of pollutants for which action under this subsection may have been brought, N.J.S.A. 58:10A-10(c)(3); compensatory damages and any other actual damages for any natural resource of this State that has been, or may be, lost or destroyed as a result of the

unauthorized discharge of pollutants, N.J.S.A. 58:10A-10(c)(4); and the actual amount of any economic benefits accruing to the violator from any violation, including savings realized from avoided capital or noncapital costs resulting from the violation, the return earned or that may be earned on the amount of avoided costs, any benefits accruing as a result of a competitive market advantage enjoyed by reason of the violation, or any other benefit resulting from the violation, N.J.S.A. 58:10A-10(c)(5).

254. Pursuant to N.J.S.A. 58:10A-10(e), the Defendants shall be subject to a court ordered civil penalty not to exceed \$50,000.00 per day for a violation of the WPCA with each day's continuation of the violation constituting a separate violation.

255. Defendants' unpermitted discharges of pollutants, including PFAS, constitute violations of the WPCA.

PRAYER FOR RELIEF

WHEREFORE, the Commissioner requests that this Court enter judgment against Solvay and Arkema as follows:

- a. Preliminarily and permanently enjoining Solvay and Arkema, requiring Solvay to cease all unpermitted discharges of pollutants, including Solvay's "replacement" PFAS products and other PFAS, and requiring both Solvay and Arkema to remove, correct, or terminate the adverse effects on water quality resulting

from any unauthorized discharge of pollutants at or from the Site;

- b. Assessing Solvay and Arkema, without regard to fault, for the costs for any investigation, inspection, or monitoring survey, leading to establishment of the violation, including the costs of preparing and litigating the case;
- c. Finding Solvay and Arkema liable, without regard to fault, for all costs for removing, correcting, or terminating the adverse effects upon water quality resulting from any unauthorized discharge of pollutants at the Site;
- d. Finding Solvay and Arkema liable, without regard to fault, for all compensatory damages and other actual damages for any natural resource of the State that has been, or may be, injured, lost, or destroyed as a result of the unauthorized discharge of pollutants at the Site;
- e. Finding Solvay and Arkema liable, without regard to fault, for the amount of any economic benefits they have accrued, including any savings realized from avoided capital or noncapital costs, the return they have earned of the amount of avoided costs, and benefits each Defendant has enjoyed as a result of a competitive market

advantage, or any other benefit they have received as a result of having violated the WPCA;

- f. Finding that portions of the Solvay facility constitute conveyances used or intended for use in the purposeful or knowing discharge, in violation of the provisions of the WPCA, of one or more pollutants or toxic pollutants and that such portions of the facility are subject to forfeiture to the State pursuant to the provisions of N.J.S.A. 13:1K-1, et seq.
- g. Ordering Defendants to pay a civil penalty not to exceed \$50,000.00 per day for each violation of the WPCA with each day's continuation of the violation constituting a separate violation;
- h. Awarding the Commissioner her costs and fees in this action pursuant to N.J.S.A. 58:10A-10(c)(2); and
- i. Awarding the Commissioner interest and such other relief as the Court deems appropriate.

THIRD COUNT
(Solid Waste Management Act)

256. Plaintiffs repeat each allegation of Paragraphs 1 through 254 above as though fully set forth in its entirety herein.

257. Solvay and Arkema are each a "person" within the meaning of N.J.S.A. 13:1E-3.

258. The Solid Waste Management Act ("SWMA" or the "Act") defines "[s]olid waste" as, inter alia, "discarded materials resulting from industrial, commercial and agricultural operations" and "all other waste materials." N.J.S.A. 13:1E-3. N.J.A.C. 7:26-1.6(b) defines "other waste material," in pertinent part, as "any solid, liquid, semi-solid or contained gaseous material, including, but not limited to spent material, sludge, by-product, discarded commercial chemical products, or scrap metal resulting from industrial, commercial, mining or agricultural operations, from community activities, or any other material which has served or can no longer serve its original intended use, which . . . [i]s discarded or intended to be discarded . . . [i]s applied to the land or placed on the land or contained in a product that is applied to or placed on the land in a manner constituting disposal." N.J.A.C. 7:26-1.6(b) provides that "a material is also a solid waste if it is 'disposed of' by being discharged, deposited, injected, dumped, spilled, leaked or placed into or on any land or water so that such material or any constituent thereof may enter the environment or be emitted into the air or discharged into ground or surface waters."

259. N.J.S.A. 13:1E-3 of the SWMA and N.J.A.C. 7:26-1.4 define "disposal" as "the storage, treatment, utilization, processing, resource recovery of, or the discharge, deposit,

injection, dumping, spilling, leaking or placing of any solid or hazardous waste into or on any land or water, so that the solid or hazardous waste or any constituent thereof may enter the environment or be emitted into the air or discharged into any waters, including groundwaters."

260. Various constituents present in soils, groundwater, and surface water in and around the Site, including PFAS-related chemicals, are discarded materials and are "solid waste" as defined under N.J.S.A. 13:1E-3 and N.J.A.C. 7:26-1.6.

261. Solvay and Arkema have engaged in the past disposal, and/or are continuing to engage in the disposal, of solid waste in and around the Site in the form of various constituents, including PFAS-related chemicals, without first having filed a completed application for and received approval of a solid waste facility ("SWF") permit for such activities, resulting in the widespread presence of such solid wastes in soils, groundwater, and surface water in and around the Site, all in violation of N.J.A.C. 7:26-2.8(e).

262. Solvay and Arkema have engaged in the past disposal, and/or are continuing to engage in the disposal, of solid waste in and/or around the Site in the form of hazardous constituents, including PFAS-related chemicals, in excess of 0.148 cubic yards of solids and/or 30 gallons of liquids, at locations other than a

permitted SWF, resulting in the widespread presence of such solid wastes in soils, groundwater, and surface water in and around the Site, in violation of N.J.S.A. 13:1E-9.3.

263. Pursuant to N.J.S.A. 13:1E-9(b) and (d), when the Commissioner finds that a person has violated any provision of the SWMA or any regulations adopted pursuant to the SWMA, the Commissioner is authorized to bring a civil action in Superior Court seeking temporary or permanent injunctive and other relief, as well as assessment of the violator for the costs of any investigation, inspection, or monitoring leading to the establishment of the violation, costs incurred by Plaintiffs in removing, correcting or terminating the adverse effects to water and air quality resulting from the violation, and assessment against the violator of compensatory damages for any loss or destruction of wildlife, fish or aquatic life, and for any other actual damages, all of which relief may be awarded in a summary manner.

264. Pursuant to N.J.S.A. 13:1E-9(f), when the Commissioner finds that a person has violated any provision of the SWMA or any regulations adopted pursuant to the SWMA, the Commissioner is authorized to bring a civil action in Superior Court seeking a civil penalty of \$50,000.00 per day.

PRAYER FOR RELIEF

WHEREFORE, the Commissioner requests that this Court enter judgment against Solvay and Arkema as follows:

- a. Preliminarily and permanently enjoining Solvay, requiring Solvay to cease all unlawful and unpermitted disposal of solid wastes, including PFAS, at all locations on and off the Site.
- b. Ordering Solvay and Arkema to, jointly and severally, fully comply with the SWMA by, inter alia, removing all unlawfully disposed of solid waste, including PFAS-related chemicals, under direct oversight pursuant to N.J.S.A. 58:10C-27, from all locations on and off the Site at which the same have come to be located and for which Solvay and Arkema did not obtain a SWF permit;
- c. Ordering Solvay and Arkema, jointly and severally, to reimburse the Commissioner for the reasonable costs of preparing and litigating her claim seeking the enforcement of Solvay's and Arkema's obligations pursuant to the SWMA;
- d. Ordering Solvay and Arkema, jointly and severally, to reimburse the Commissioner for the cost incurred by the Department in assessing, removing, correcting, or

- terminating the adverse effects upon water and air quality resulting from their violations of the SWMA Act;
- e. Ordering Solvay and Arkema, jointly and severally, to compensate Plaintiffs for the loss or destruction of wildlife, fish or aquatic life, and other actual damages caused by their violations of the SWMA; and
 - f. Finding that portions of the Solvay facility constitute conveyances used or intended for use in the willful discharge, in violation of the provisions of the SWMA, of any solid waste, or hazardous waste as defined in N.J.S.A. 13:1E-38 et seq. and that such portions of the facility are subject to forfeiture to the State pursuant to the provisions of N.J.S.A. 13:1K-1 et seq.
 - g. Ordering Defendants to pay a civil penalty not to exceed \$50,000.00 per day for each violation of the SWMA with each day's continuation of the violation constituting a separate violation;
 - h. Awarding the Commissioner such other relief as this Court deems appropriate.

FOURTH COUNT
(Brownfield and Contaminated Site Remediation Act - As Against Solvay)

265. Plaintiffs repeat each allegation of Paragraphs 1 through 263 above as though fully set forth in its entirety herein.

266. Solvay is a "person" within the meaning of N.J.S.A. 58:10-23.11b and N.J.S.A. 58:10B-1.

267. Solvay is a "discharger" of contaminants at the Site.

268. The contaminants of concern at the Site are hazardous substances as defined in N.J.S.A. 58:10-23.11b and pollutants as defined in N.J.S.A. 58:10A-3.

269. Solvay is a "person in any way responsible," pursuant to the Spill Act, N.J.S.A. 58:10-23.11, for any hazardous substance that was discharged at the Site, and as an "owner of the real property where the discharge occurred at the time of the discharge" N.J.A.C. 7:26C-1.4.

270. Pursuant to Section 58:10B-1.3 of the Brownfield Act, as the discharger of a hazardous substance at the Site and as a person in any way responsible for a hazardous substance pursuant to N.J.S.A. 58:10-23.11g, Solvay is affirmatively obligated to remediate the discharged hazardous substances at and from the Site.

271. Pursuant to Sections 58:10B-1.3 and 58:10B-3 of the Brownfield Act, Solvay is also required to establish a remediation funding source in an amount necessary to pay the costs to remediate the Site because it is a person in any way responsible for a hazardous substance under the Spill Act, it is a recipient of the PFAS Directive and numerous orders, and it is a discharger of contaminants (including hazardous substances and pollutants).

272. Pursuant to Sections 58:10B-1.3 and 58:10B-3 of the Brownfield Act, Solvay is also required to establish a remediation funding source in an amount necessary to pay the costs to remediate the Site because Solvay is the owner of an Industrial Establishment for which multiple transactions triggered obligations pursuant to the Industrial Site Recovery Act, N.J.S.A. 13:1K-6, as confirmed by the filing of multiple General Information Notices with the Department.

273. Pursuant to N.J.A.C. 7:26C-1.4, Solvay is a person "in any way responsible" pursuant to the Spill Act required to comply with the Department's ARRCS rules.

274. Pursuant to the Department's Technical Requirements for Site Remediation, N.J.A.C. 7:26E-1.3 and 7:26E-1.5(a) (the "Technical Requirements"), as a person subject to the requirements of the ARRCS rules, Solvay is required to conduct a remediation of contaminants discharged at the Site in accordance with the Technical Requirements.

275. Pursuant to N.J.A.C. 7:26E-4.3(a)(4), 7:26E-5.1(b) and 7:26E-5.1(d)(1) and (4) of the Technical Requirements, Solvay is required to, inter alia, (1) delineate the horizontal and vertical extent of all groundwater contamination to the groundwater remediation standards, and (2) remediate such contaminants in a manner that is "protective of public safety, health and the

environment" and "complies with all applicable remediation standards." Solvay has failed to do so by not delineating the full extent of groundwater contamination caused by its discharges or remediating such contamination.

276. Moreover, although Solvay is required to do so, Solvay has failed to investigate and remediate all contaminants, including but not limited to PFNA and PFOA, to applicable standards and to post a remediation funding source in connection with same.

277. As a direct or indirect result of the foregoing violations, the Department and the Administrator have incurred, are incurring, and will continue to incur substantial costs including costs relating to the investigation, cleanup, and removal of discharged constituents and other materials, and NJDEP has been thwarted in its right pursuant to the Brownfield Act to obtain the financial assurance necessary to ensure that all hazardous substances at and emanating from the Site will be cleaned up in accordance with the Brownfield Act and NJDEP's regulatory requirements.

PRAYER FOR RELIEF

WHEREFORE, the Department and the Administrator request that this Court enter judgment against Solvay as follows:

- a. Ordering Solvay to fully comply with the Brownfield Act by, inter alia, performing remediation under direct

oversight pursuant to N.J.S.A. 58:10C-27, submitting a remedial investigation workplan and remedial investigation report pertaining to all locations at which PFAS and PFAS-related pollutants, contaminants and/or hazardous substances originating from the Site have come to be located, establishing a properly valued remediation funding source for the Site in conformance with N.J.A.C. 7:26C-5.1 to -5.13, and submitting a proposed public participation plan that contains the strategy for and schedule of soliciting public comment from the members of the surrounding community concerning the remediation of the site;

- b. Ordering Solvay to reimburse the Department and Administrator for the reasonable costs of preparing and litigating their claim seeking the enforcement of Solvay's obligations under the Brownfield Act; and
- c. Awarding the Department and the Administrator such other relief as this Court deems appropriate.

FIFTH COUNT

**(Site Remediation Reform Act and Administrative Requirements for
the Remediation of Contaminated Sites)**

278. Plaintiffs repeat each allegation of Paragraphs 1 through 276 above as though fully set forth in its entirety herein.

279. Solvay and Arkema are each a "person" within the meaning of N.J.S.A. 58:10C-2.

280. Many of the contaminants of concern discharged at the Site are hazardous substances as defined in N.J.S.A. 58:10C-2.

281. Solvay and Arkema are each a "discharger" of hazardous substances at the Site within the meaning of N.J.S.A. 58:10C-2.

282. Solvay and Arkema are each a "person responsible for conducting the remediation" pursuant to N.J.S.A. 58:10C-2 because each is the discharger of a hazardous substance at the Site and a person in any way responsible for a hazardous substance pursuant to N.J.S.A. 58:10-23.11g.

283. Solvay and Arkema are also each a "person responsible for conducting the remediation" pursuant to N.J.S.A. 58:10C-2 because each has been the owner of an Industrial Establishment for which multiple transactions triggered obligations pursuant to the Industrial Site Recovery Act, N.J.S.A. 13:1K-6, as confirmed by the filing of multiple General Information Notices with the

Department.

284. The Site is being remediated partially to satisfy the obligations under RCRA and is a priority site under the RCRA Government Performance and Results Act (i.e., RCRA 2020 GPRA Site).

285. Accordingly, pursuant to N.J.A.C. 7:26C-2.3(a)3i(3), the remediation of the Site may only be conducted with prior Department approval (i.e., Traditional Oversight).

286. Solvay has repeatedly refused to acknowledge or comply with its obligation to meet this legal requirement.

287. Pursuant to N.J.A.C. 7:26C-3.4(a) and (b), the Department may establish an expedited site-specific remediation timeframe so long as it notifies the person responsible for conducting the remediation in writing.

288. When the Department determines that the person responsible for conducting the remediation has failed to meet the expedited site-specific timeframe for a site, area of concern, or condition, such site, area of concern, or condition is subject to Direct Oversight of the Department. N.J.A.C. 7:26C-3.4(d).

289. In the 2019 PFAS Directive, Solvay was ordered to comply with expedited site-specific deadlines with respect to certain potable wells in West Deptford Township, Greenwich Township, Logan Township, Swedesboro Borough, and Oldman's Township. In addition, Solvay was ordered to identify, sample, and implement treatment

and monitoring of all wells with documented exceedances of the PFNA MCL or PFOA action level attributable to the Site.

290. Because Solvay has not fully complied with these expedited site-specific timeframes, it is subject to Direct Oversight pursuant to N.J.A.C. 7:26C-3.4(d) and N.J.A.C. 7:26C-14.2(b).

291. Pursuant to N.J.S.A. 58:10C-27(b), the Department may undertake Direct Oversight when the Department determines that more than one environmentally sensitive natural resource has been injured by contamination from the Site.

292. Pursuant to N.J.A.C. 7:1E-1.8, environmentally sensitive natural resources include surface waters and water resources used by a public water system, non-public water system, or water system.

293. The Department has determined that the Site has injured the Delaware River, several of its tributaries, and groundwater resources utilized for potable purposes.

294. Because the injuries to these natural resources are regional in scope, constitute far more than five acres, and involve injuries caused by bio-accumulative, persistent PFAS, the Department has determined that the entire remediation of the Site and all areas where contaminants from the Site have come to be

located shall be subject to Direct Oversight.

PRAYER FOR RELIEF

WHEREFORE, the Department requests that this Court enter judgment against Solvay as follows:

- a. Ordering the Defendants, consistent with the Department's directions, requirements, and timeframes for remediation, to fully comply with the Defendants' Direct Oversight obligations pursuant to N.J.A.C. 7:26-3.4(d), N.J.S.A. 58:10C-27(c), and N.J.A.C. 7:26C-14.2(b); and
- b. Awarding the Department such other relief as this Court deems appropriate.

SIXTH COUNT
(Safe Drinking Water Act)

295. Plaintiffs repeat each allegation of Paragraphs 1 through 293 above as though fully set forth in its entirety herein.

296. "The Legislature finds and declares that it is a paramount policy of the State to protect the purity of the water we drink and . . . that the maintenance of high-quality potable water is essential in order to safeguard the health and welfare of the people of the State. . . ." N.J.S.A. 58:12A-2.

297. Solvay and Arkema have discharged, and Solvay continues to discharge, hazardous substances, pollutants, and contaminants including various PFAS, each of which constitutes a "contaminant"

under N.J.S.A. 58:12A-3.

298. Those contaminants are present in and are likely to continue to enter water systems, as defined by N.J.S.A. 58:12A-3, which include both public water systems and nonpublic water systems (i.e., private wells), presenting an imminent and substantial endangerment to the health of persons.

299. Pursuant to N.J.S.A. 58:12A-6, "[t]he [C]ommissioner, upon receipt of information that a contaminant which is present in or is likely to enter a water system may present an imminent and substantial endangerment to the health of persons, may take such actions as [s]he may deem necessary in order to protect the health of such persons," including "commencing a civil action for appropriate relief, including a restraining order or permanent or temporary injunction."

PRAYER FOR RELIEF

WHEREFORE, the Commissioner requests that this Court enter judgment against Solvay and Arkema as follows:

- a. Declaring that Solvay's and Arkema's discharges and emissions of contaminants present in or likely to enter water systems present an imminent and substantial endangerment to the health of persons using such water systems.

- b. Preliminarily and permanently enjoining Solvay and Arkema, requiring Solvay to cease all discharges and emissions of contaminants, including Solvay's "replacement" PFAS products and other PFAS present in or likely to enter water systems, and requiring both Solvay and Arkema to remove, correct, or terminate the adverse effects on water systems that pose an imminent and substantial endangerment to the health of persons resulting from any discharges or emissions of contaminants at or from the Site;
- c. Finding Solvay and Arkema liable, without regard to fault, for all costs for removing, correcting, or terminating the adverse effects upon potable water quality that pose an imminent and substantial endangerment to the health of persons resulting from any discharge or emissions of contaminants at or from the Site;
- d. Awarding the Commissioner her costs and fees in this action; and
- e. Awarding the Commissioner interest and such other relief as the Court deems appropriate.

SEVENTH COUNT
(Air Pollution Control Act)

1. Plaintiffs repeat each allegation of Paragraphs 1 through 298 above as though fully set forth in its entirety herein.

2. Solvay and Arkema are each a "person" within the meaning of N.J.S.A. 26:2C-2 and N.J.A.C. 7:27-1.4.

It is unlawful for any person to "cause suffer, allow or permit to be emitted into the outdoor atmosphere substances in quantities which shall result in air pollution." N.J.A.C. 7:27-5.2.

3. "'Air pollution' means the presence in the outdoor atmosphere of one or more air contaminants in such quantities and duration as are, or tend to be, injurious to human health or welfare, animal or plant life or property, or would unreasonably interfere with the enjoyment of life or property throughout the State and in such territories of the State as shall be affected thereby and excludes all aspects of employer-employee relationship as to health and safety hazards." N.J.A.C. 7:27-5.1.

4. "'Air contaminant' means any substance, other than water or distillates of air, present in the atmosphere as solid particles, liquid particles, vapors, or gases." N.J.S.A. 26:2C-2.

5. PFAS compounds emitted from the Site, including PFNA, PFOA, and "replacement" PFAS, are air contaminants that have, upon information and belief, caused air pollution, impacting off-site

soils and groundwater. These emissions of air contaminants are injurious to human health and welfare, animal and plant life, and property, and unreasonably interfere with the enjoyment of life and property within the State, thereby violating N.J.A.C. 7:27-5.2.

6. Pursuant to N.J.S.A. 26:2C-19(a) and 13:1D-9(e) and (n), the Department may bring an action for injunctive relief and any other appropriate relief to prohibit and prevent the violations.

7. Solvay and Arkema are not entitled to any affirmative defense because their emissions of PFAS contaminants from the Site have threatened and continue to pose a potential threat to public health, welfare, and the environment. N.J.S.A. 26:2C-19.3.

PRAYER FOR RELIEF

WHEREFORE, the Department requests that this Court enter judgment against Defendants as follows:

- a. Preliminarily and permanently enjoining Solvay, requiring it to cease emitting PFAS air contaminants from the Site;
- b. Ordering Solvay and Arkema to remediate all soils and waters contaminated by their PFAS emissions in order to mitigate the injuries to human health and welfare, animal and plant life and property, and the unreasonable

interference with the enjoyment of life and property;
and

- c. Awarding the Commissioner her costs and fees in this action and any other relief the Court deems appropriate pursuant to N.J.S.A. 26:2C-19(a).

EIGHTH COUNT
(Public Nuisance)

306. Plaintiffs repeat each allegation of Paragraphs 1 through 305 above as though fully set forth in its entirety herein.

307. Groundwater, surface water, sediments, wetlands, air, and biota are natural resources of the State held in trust by the State.

308. The use, enjoyment, and existence of uncontaminated natural resources is a right common to the general public.

309. The contamination of the groundwater, surface water, sediment, wetlands, air, and biota at and around Solvay constitutes a physical invasion of the State's natural resources, and upon information and belief, the State's real property in the vicinity of the Site, and an unreasonable and substantial interference, both actual and potential, with (1) the exercise of the public's common right to these natural resources; (2) the State's special property and statutory status and obligations regarding the natural resources of the State; (3) the State's ability, through the Department, to protect, conserve and manage the natural

resources of the State, which are by law precious and invaluable public resources held by the State in trust for the benefit of the public; and (4) the rights of the people of the State to enjoy their natural resources free from interference by pollution and contamination.

310. As long as these natural resources at and around the Site remain contaminated due to Solvay's and Arkema's conduct, the public nuisance continues.

311. Until these natural resources are restored to their pre-injury quality, Solvay and Arkema are liable for the creation, and continued maintenance, of a public nuisance in contravention of the public's common right to clean natural resources.

312. Solvay and Arkema committed each of the above-described acts and omissions with actual malice or with a wanton and willful disregard of persons who foreseeably might be harmed by those acts or omissions.

313. In addition to being empowered by the common law, the Department is also empowered pursuant to N.J.S.A. 13:1D-9 to institute legal proceedings for the prevention of pollution of the environment and abatement of nuisances and shall have the authority to seek and obtain injunctive relief.

PRAYER FOR RELIEF

WHEREFORE, Plaintiffs request that this Court enter judgment against Solvay and Arkema as follows:

- a. Preliminarily and permanently enjoining Solvay, requiring it to cease all ongoing unpermitted discharges and emissions of contaminants, including PFAS, contributing to the nuisance on and off the Site.
- b. Ordering Solvay and Arkema to reimburse the Department and Administrator for their costs of abatement, without regard to fault, including but not limited to all costs to investigate, clean up, restore, treat, monitor, and otherwise respond to contamination of the State's natural resources so that such natural resources are restored to their original condition;
- c. Compelling Solvay and Arkema to abate the nuisance by investigating, cleaning up, restoring, treating, monitoring, and otherwise responding to contamination in the State's natural resources so that such natural resources are restored to their original condition;
- d. Compelling Solvay and Arkema to pay special damages to Plaintiffs, funding the Department's performance of any further assessment and compensatory restoration of any natural resource that has been, or may be, injured as a

result of the discharge of hazardous substances and pollutants at the Site, and compelling Solvay and Arkema to compensate the citizens of New Jersey, for the costs of restoration and replacement, including lost use and value of any injured natural resource;

- e. Awarding Plaintiffs punitive damages in an amount to be determined by the Court;
- f. Awarding Plaintiffs their costs and fees in this action, including attorneys' fees incurred in prosecuting this action, together with prejudgment interest, to the full extent permitted by law; and
- g. Awarding Plaintiffs such other relief as this Court deems proper.

NINTH COUNT
(Trespass)

314. Plaintiffs repeat each allegation of Paragraphs 1 through 313 as if fully set forth in their entirety herein.

315. Groundwater, surface water, sediment, wetlands, air, and biota are natural resources of the State held in trust by the State for the benefit of the public. Groundwater is owned by the State for the benefit of its citizens.

316. The Department brings this claim in three capacities: (i) as public trustee; (ii) in its parens patriae capacity; and (iii) in its capacity as a property owner.

317. As the trustee over the State's natural resources, the Department has a duty to protect and restore all natural resources of the State and protect the health and comfort of its inhabitants.

318. In its parens patriae capacity, the State may protect its "quasi-sovereign" interests, including its interest in the well-being of its populace, as well as the populace's interest in the integrity of the State's natural resources. Accordingly, the Department is bringing this action for the invasion of a substantial number of its residents' possessory interests in the State's natural resources. Waters, sediments, air, and biota that have been affected by Solvay's and Arkema's contamination are mobile, moving to and inhabiting areas far from the immediate area of the initial contamination.

319. The hazardous substances and pollutants in the groundwater, surface water, sediment, wetlands, soils, air, and biota at and around Solvay, including, upon information and belief, on State-owned lands, constitute a physical invasion of property without permission or license.

320. Solvay and Arkema are liable for trespass, and continued trespass, because the hazardous substances and pollutants in the groundwater, surface water, sediment, wetlands, soils, air, and biota at and around the Site, as well as contamination previously

removed from the Site, resulted from discharges and emissions of hazardous substances and pollutants at and from the Site.

321. As long as the natural resources remain contaminated due to Solvay's and Arkema's conduct, the trespass continues.

322. Solvay and Arkema committed each of the above-described acts and omissions with actual malice or with a wanton and willful disregard of persons who foreseeably might be harmed by those acts or omissions.

PRAYER FOR RELIEF

WHEREFORE, Plaintiffs request that this Court enter judgment against Solvay and Arkema as follows:

- a. Preliminarily and permanently enjoining Solvay, requiring it to cease all ongoing unpermitted discharges and emissions of contaminants, including PFAS, contributing to the trespass.
- b. Finding Solvay and Arkema liable, jointly and severally, for all costs to investigate, clean up, restore, treat, monitor, and otherwise respond to contamination of the State's natural resources so that such natural resources are restored to their original condition, and for all damages to compensate the citizens of New Jersey for the lost use and value of their natural resources during all times of injury caused by hazardous substances and

pollutants, and for such orders as may be necessary to provide full relief to address risks to the State, including the costs of:

- 1) Past and future testing of natural resources likely to have been contaminated by hazardous substances or pollutants;
 - 2) Past and future treatment of all natural resources containing detectable levels of hazardous substances or pollutants restored to non-detectable levels; and
 - 3) Past and future monitoring of the State's natural resources to detect the presence of hazardous substances or pollutants, and restoration of such natural resources to their pre-discharge condition;
- c. Ordering Solvay and Arkema to pay for all costs related to the investigation, cleanup, restoration, treatment, and monitoring of contamination of the State's natural resources;
- d. Ordering Solvay and Arkema to pay for all damages in an amount at least equal to the full cost of restoring the State's natural resources to their original condition prior to the contamination;

- e. Ordering Solvay and Arkema to pay for all compensatory damages for the lost value (including lost use) of the State's natural resources as a result of the contamination of such natural resources;
- f. Ordering Solvay and Arkema to pay for all other damages sustained by Plaintiffs in their public trustee, parens patriae, proprietary, and regulatory capacities as a direct and proximate result of Solvay's and Arkema's acts and omissions alleged herein;
- g. Entering an order against Solvay and Arkema for all appropriate injunctive relief to abate or mitigate the contamination that Solvay and Arkema caused;
- h. Awarding Plaintiffs punitive damages in an amount to be determined by the Court;
- i. Awarding Plaintiffs costs and fees in this action, including attorneys' fees, incurred in prosecuting this action, together with prejudgment interest, to the full extent permitted by law; and
- j. Awarding Plaintiffs such other relief as this Court deems appropriate.

TENTH COUNT
(Negligence)

323. Plaintiffs repeat each allegation of Paragraphs 1 through 322 above as though fully set forth in its entirety herein.

324. Solvay and Arkema had a duty to Plaintiffs to ensure that hazardous substances and pollutants were not discharged at the Site and did not injure groundwater, surface water, sediment, wetlands, air, and biota at and around the Site.

325. Defendants breached these duties.

326. As a direct and proximate result of Solvay's and Arkema's discharge of hazardous substances and pollutants at the Site, groundwater, surface water, sediment, wetlands, soils, air, biota, and other natural resources at and around the Site have been injured. Solvay and Arkema are jointly and severally liable for such injuries and the consequential damages.

327. As a further direct and proximate result of Solvay's and Arkema's discharge of hazardous substances and pollutants at the Site, the Department and the Administrator have incurred, are incurring, and will continue to incur investigation, cleanup and removal, treatment, monitoring and restoration costs, and expenses for which Solvay and Arkema are jointly and severally liable.

328. The injuries and harm caused by Defendants' breaches were foreseeable consequences of Defendants' acts and omissions.

329. Defendants committed each of the above-described acts and omissions with actual malice or with a wanton and willful disregard of persons who foreseeably might be harmed by those acts or omissions.

PRAYER FOR RELIEF

WHEREFORE, Plaintiffs request that this Court enter judgment against Defendants as follows:

- a. Preliminarily and permanently enjoining Solvay, requiring it to cease all ongoing unpermitted discharges and emissions of contaminants, including PFAS, on and off the Site.
- b. Finding Defendants liable, jointly and severally, for all costs to investigate, clean up, restore, treat, monitor, and otherwise respond to contamination of the State's natural resources so that such natural resources are restored to their original condition, and for all damages to compensate the citizens of New Jersey for the lost use and value of their natural resources during all times of injury caused by hazardous substances and pollutants, and for such orders as may be necessary to provide full relief to address risks to the State, including the costs of:
 - 1) Past and future testing of natural resources likely to have been contaminated by hazardous substances or pollutants;
 - 2) Past and future treatment of all natural resources containing detectable levels of

hazardous substances or pollutants restored to non-detectable levels; and

- 3) Past and future monitoring of the State's natural resources to detect the presence of hazardous substances or pollutants, and restoration of such natural resources to their pre-discharge condition;
- c. Ordering Defendants to pay for all costs related to the investigation, cleanup, restoration, treatment, and monitoring of contamination of the State's natural resources;
- d. Ordering Defendants to pay for all damages in an amount at least equal to the full cost of restoring the State's natural resources to their original condition prior to the contamination;
- e. Ordering Defendants to pay for all compensatory damages for the lost value (including lost use) of the State's natural resources as a result of the contamination of such natural resources;
- f. Ordering Defendants to pay for all other damages sustained by Plaintiffs in their public trustee, parens patriae, and regulatory capacities as a direct and

proximate result of the Defendants' acts and omissions alleged herein;

- g. Entering an order against Defendants for all appropriate injunctive relief to abate or mitigate the contamination that Defendants caused;
- h. Awarding Plaintiffs punitive damages in an amount to be determined by the Court;
- i. Awarding Plaintiffs costs and fees in this action, including attorneys' fees, incurred in prosecuting this action, together with prejudgment interest, to the full extent permitted by law; and
- j. Awarding Plaintiffs such other relief as this Court deems appropriate.

ELEVENTH COUNT
(Abnormally Dangerous Activity)

330. Plaintiffs repeat each allegation of Paragraphs 1 through 329 above as though fully set forth in its entirety herein.

331. Solvay and Arkema used, disposed of, discharged, and emitted their PFAS at and from the Site. These activities occurred in the immediate vicinity of the State's natural resources, including groundwater, air, surface water, sediments and soils, wetlands, and biota. These activities occurred in the immediate vicinity of drinking water sources.

332. As a result of Solvay's and Arkema's use of PFAS at the Site, the State's natural resources, including drinking water sources serving significant populations, were contaminated by PFAS.

333. The use of PFAS in the manufacture of other products and their disposal, discharge, and emission constitute ultra-hazardous activities that introduce an unusual danger into the community. These activities presented and continue to present a high degree of risk of harm to the State's natural resources, including large quantities of potable water. These activities have presented a high likelihood that the harm they would cause would be great. Neither Plaintiffs nor the broader community were able to eliminate this risk by the exercise of reasonable care, particularly in light of Solvay's and Arkema's failure to provide an adequate warning about the dangers involved.

334. The use, disposal, discharge, and emission of PFAS is not a matter of common usage in the areas in which Solvay and Arkema carried out these activities, and these activities were inappropriate to carry out in these locations.

335. At all relevant times, the risks of Solvay's and Arkema's abnormally dangerous activities outweighed the value to the community.

336. Solvay's and Arkema's acts and omissions in using, disposing, discharging, and emitting PFAS in the areas in which they did proximately caused the contamination of the State's natural resources, including large quantities of potable water. Solvay and Arkema are thus strictly liable for the harm these ultra-hazardous activities caused.

337. Solvay has exacerbated the impact of its PFAS on the public health, safety, and environment by treating virtually all information regarding the safety of and its use, discharge, and emission of the "replacement" PFAS compounds as Confidential Business Information, thereby limiting the Department's ability to act promptly to address the ultra-hazardous activities involving and the impacts of Solvay's "replacement" compounds.

338. Solvay and Arkema committed each of the above-described acts and omissions with actual malice or with a wanton and willful disregard of persons who foreseeably might be harmed by those acts or omissions.

PRAYER FOR RELIEF

WHEREFORE, Plaintiffs request that this Court enter judgment against Solvay and Arkema as follows:

- a. Preliminarily and permanently enjoining Solvay, requiring it to cease all ongoing unpermitted discharges

and emissions of contaminants, including PFAS, on and off the Site.

- b. Finding Solvay and Arkema liable, jointly and severally, for all costs to investigate, clean up and remove, restore, treat, monitor, and otherwise respond to PFAS contamination in the State's groundwater, surface waters, and other natural resources so that such natural resources are restored to their original condition, and for all damages to compensate the citizens of New Jersey for the lost use and value of their natural resources during all times of injury caused by PFAS products, and for such orders as may be necessary to provide full relief to address risks to the State, including the costs of:

- 1) Past and future testing of groundwater, surface waters, and natural resources likely to have been contaminated for the presence of PFAS;
- 2) Past and future treatment of all groundwater, surface waters, and other natural resources containing detectable levels of PFAS until restored to non-detectable levels; and

- 3) Past and future monitoring of the State's groundwater, surface waters, and other natural resources to detect the presence of PFAS, and restoration of such natural resources to their pre-discharge condition;
- c. Ordering Solvay and Arkema to pay for all costs related to the investigation, cleanup, restoration, treatment, and monitoring of contamination of the State's groundwater, surface waters, and other natural resources caused by PFAS;
- d. Ordering Solvay and Arkema to pay for all damages in an amount at least equal to the full cost of restoring the State's groundwater, surface waters, and other natural resources to their original condition prior to the contamination of such waters by PFAS;
- e. Ordering Solvay and Arkema to pay for all compensatory damages for the lost value (including lost use) of the State's groundwater, surface waters, and other natural resources as a result of the contamination of such natural resources with PFAS;
- f. Ordering Solvay and Arkema to pay for all other damages sustained by Plaintiffs as a direct and proximate result of their acts and omissions alleged herein, including

remedial, administrative, oversight, and legal fees and expenses;

- g. Entering an order against Solvay and Arkema for all appropriate injunctive relief to abate or mitigate the PFAS contamination that they caused;
- h. Ordering Solvay to withdraw its Confidential Business Information claims for its "replacement" PFAS compounds, including the identities of those compounds; all information relating to discharges, emissions, or releases of such compounds into New Jersey's environment; all health and safety information; and all information relevant to developing analytical methods and standards capable of measuring these compounds in the environment.
- i. Awarding Plaintiffs punitive damages in an amount to be determined by this Court;
- j. Awarding Plaintiffs costs and fees in this action, including attorneys' fees, incurred in prosecuting this action, together with prejudgment interest, to the full extent permitted by law; and
- k. Awarding Plaintiffs such other relief as this Court deems appropriate.

JURY DEMAND

Plaintiffs are entitled to a jury trial and hereby demand a trial by jury.

RULE 4:5-1 CERTIFICATION

I hereby certify that, to the best of my knowledge and belief, the matter in controversy is not the subject of any action pending in any other court or of a pending arbitration proceeding, nor is any other action or arbitration proceeding contemplated, except for the following matter filed by Solvay Specialty Polymers USA, LLC in the Appellate Division on November 4, 2020:

- *In Re New Jersey Dep't of Env'tl. Prot. Direct Oversight Determination Against Solvay Specialty Polymers USA, LLC.*

Plaintiffs do not consider the following cases to be related to this matter, which is being brought by State governmental entities, as these other cases involve private plaintiffs with different types of standing, rights, injuries, and relief. Nevertheless, since these cases do have some of the same parties and concern some of the same contaminants and locations as the within matter, plaintiffs identify them herein:

- *Giordano et al. v. Solvay Specialty Polymers USA, LLC et al.*, venued in the United States District Court for the

District of New Jersey, Docket Civ. 1:19-cv-21573 (NLH-JS);

- *Severa et al. v Solvay Specialty Polymers USA, LLC et al.*, venued in the United States District Court for the District of New Jersey, Docket Civ. 1:20-cv-06906 (NLH-JS);
- *Bond et al. v. Solvay Specialty Polymers USA, LLC et al.*, venued in the United States District Court for the District of New Jersey, Docket Civ. 1:08487 (NLH-KMW);
- *Slusser et al. v. Solvay Specialty Polymers USA, LLC, et al.*, venued in the United States District Court for the District of New Jersey, Docket Civ. 20-11393 (NLH/JS);
and
- *Solvay Specialty Polymers USA, LLC v. Paulsboro Refining Company LLC*, venued in the Superior Court of New Jersey, Law Division, Civil Part, Gloucester County, Docket No. GLO-L-001082-20.

I know of no other parties other than the parties set forth in this pleading who should be joined in the above action. I recognize the continuing obligation of each party to file with the Court and serve on all parties an amended Certification if there is a change in the facts stated in the original Certification.

DESIGNATION OF TRIAL COUNSEL

Pursuant to Rule 4:25-4, Plaintiffs designate Leonard Z. Kaufmann, Esq., as trial counsel in this matter.

Dated: November 10, 2020

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Civil Case Information Statement

Case Details: GLOUCESTER | Civil Part Docket# L-001239-20

Case Caption: NEW JERSEY DEPARTMEN T OF ENVI VS
SOLVAY SPECIAL

Case Initiation Date: 11/10/2020

Attorney Name: LEONARD ZEE KAUFMANN

Firm Name: COHN LIFLAND PEARLMAN HERRMANN &
KNOPF

Address: PARK 80 WEST - PLAZA ONE 250 PEHLE AVE
STE 401

SADDLE BROOK NJ 07663

Phone: 2018459600

Name of Party: PLAINTIFF : New Jersey Department of
Envir

Name of Defendant's Primary Insurance Company
(if known): Unknown

Case Type: ENVIRONMENTAL/ENVIRONMENTAL COVERAGE
LITIGATION

Document Type: Complaint with Jury Demand

Jury Demand: YES - 6 JURORS

Is this a professional malpractice case? NO

Related cases pending: NO

If yes, list docket numbers:

**Do you anticipate adding any parties (arising out of same
transaction or occurrence)?** NO

**Are sexual abuse claims alleged by: New Jersey Department of
Envir?** NO

**Are sexual abuse claims alleged by: The Commissioner of the NJ
?** NO

**Are sexual abuse claims alleged by: The Administrator of the
Admin?** NO

THE INFORMATION PROVIDED ON THIS FORM CANNOT BE INTRODUCED INTO EVIDENCE

CASE CHARACTERISTICS FOR PURPOSES OF DETERMINING IF CASE IS APPROPRIATE FOR MEDIATION

Do parties have a current, past, or recurrent relationship? NO

If yes, is that relationship:

Does the statute governing this case provide for payment of fees by the losing party? NO

**Use this space to alert the court to any special case characteristics that may warrant individual
management or accelerated disposition:**

In re NJ Dept of Envntl. Prot. Direct Oversight Determination Against Solvay Specialty Polymers USA filed by
Solvay Specialty Polymers USA, LLC in The App .Div. on 11/4/2020

Do you or your client need any disability accommodations? NO

If yes, please identify the requested accommodation:

Will an interpreter be needed? NO

If yes, for what language:

Please check off each applicable category: Putative Class Action? NO **Title 59?** NO **Consumer Fraud?** NO

I certify that confidential personal identifiers have been redacted from documents now submitted to the court, and will be redacted from all documents submitted in the future in accordance with *Rule* 1:38-7(b)

11/10/2020
Dated

/s/ LEONARD ZEE KAUFMANN
Signed

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**Testimony of Lori Swanson
Former Minnesota Attorney General**

**Before the Committee on Oversight and Reform
Subcommittee on Environment
United States House of Representatives**

September 10, 2019

Chairman Rouda, Ranking Member Comer, and members of the Committee, thank you for this opportunity to appear today to discuss per- and polyfluoroalkyl substances, or PFAS. I understand this Committee has been conducting hearings into PFAS for some time and is familiar with the chemical and the problems it has caused.

In 2010 I was serving as Attorney General of the State of Minnesota and filed a lawsuit against 3M Company for damaging my state's natural resources through its manufacture and disposal of PFAS. Our lawsuit alleged that 3M contaminated the aquifers that supplied drinking water to over 100,000 Minnesota residents through its manufacture and disposal of these chemicals. The lawsuit was settled in February 2018—on the morning our trial was to begin. The settlement required 3M to pay \$850 million to the State of Minnesota to bring long-term clean drinking water to our residents and up to another \$40 million for short-term drinking water solutions. I have been told it is the third largest natural resource damages settlement in the nation's history.

The lawsuit lasted over seven years and involved the production of 27 million pages of documents, about 200 witness depositions, testimony of world-renowned expert scientists, and over 1,500 court filings. Public records and public trial exhibits in the lawsuit show that 3M knew but concealed information about the dangers of these chemicals for decades—some of which the public is just now discovering'.

PFAS is a man-made chemical that was created from the Manhattan Project, the top-secret project to develop the nuclear bomb during World War II. The Manhattan Project scientists needed a way to separate uranium for the bomb. They used fluorine gas for this purpose—a gas so powerful it can burn water and steel. The scientists soon discovered that fluorine gas bonds with carbon molecules to make fluorochemicals.

Minnesota is Ground Zero for the PFAS problem that now confronts the entire country. After World War II, 3M bought the patent to develop perfluorochemicals. 3M started to manufacture PFAS in Minnesota in the 1950s and ship the chemicals and related products around the country. It used them to make Scotchgard, a widely-used stain repellant. It also sold them to DuPont, which used PFAS to make Teflon, the non-stick product for cookware and manufacturing processes. 3M also used and sold PFAS for firefighting foam.

Now PFAS is in everyone's blood. Polar bears have it. The Inuit have it. Eaglets have it.

The properties that made PFAS such a blockbuster commercial success—the ability to repel oil and water and stains and to withstand fire and temperatures of 1,700 degrees—also make it hazardous to people and the environment. The chemicals are non-biodegradable in the environment, and they bio-accumulate in the human body.

Unfortunately, 3M knew about the risks of the chemicals to the drinking water, the environment, and human health for decades, but concealed its knowledge, subverted the science, and kept pushing the chemicals out the door.

In 2000, when it stopped making some forms of PFAS, 3M was making almost one-half a billion dollars per year from the products, according to testimony in our lawsuit.

And what did 3M know about PFAS prior to the year 2000?

I refer you to Exhibit A of this testimony. It shows that in 1997 3M gave DuPont a Material Safety Data Sheet with a label that said:

"CANCER: WARNING: Contains a chemical which can cause cancer" (citing "1983 and 1993 studies jointly conducted by 3M and Dupont)."

But 3M removed the label that same year and for decades sold PFAS products without warning the public of its dangers.

We know from our lawsuit that 3M told employees not to write things down about PFAS and to mark documents about PFAS as "attorney-client privileged" regardless of whether attorneys were involved.

We know that in 1998 a committee of 3M scientists recommended the company notify the EPA that its chemicals were widely found in human blood. But a 3M executive overruled them.

In 1999, a 3M scientist, Dr. Richard Purdy, blew the whistle on 3M. In March 1999 he resigned from 3M and sent his resignation letter to the EPA. Among other things, he said that 3M ecotoxicologists urged the company for two decades to perform an ecological risk assessment of PFAS but 3M dragged its feet; that 3M misleadingly downplayed to regulators the transfer of the chemicals through the food chain; and that 3M scientists were told not to write down their thoughts because of how it would look in a lawsuit. See Exhibit B.

An issue in our lawsuit was what did 3M know and when did it know it? Unfortunately, 3M knew early on there were significant problems with these chemicals.

We know that throughout the 1950s, 3M's own animal studies found that PFAS are "toxic."

By the 1960s, 3M knew the chemicals do not degrade in the environment.

In 1970, a company that purchased 3M's firefighting foam had to abandon a test of the

product because it killed all the fish. See Exhibit C.

In 1975 two independent scientists—Dr. Warren Guy and Dr. Donald Taves—found PFAS in human blood in blood banks around the country. They called 3M to say they thought its chemicals may be to blame. But 3M "plead ignorance" and misled the scientists, claiming that Scotchgard did not contain the chemicals found in blood, and refused to identify the chemicals in its products to the scientists. See Exhibit D. In doing so, the company thwarted the broader scientific community's understanding of the health impacts of these chemicals for a generation.

We know that 3M soon replicated these studies and confirmed that PFAS was in human blood. See Exhibit E.

In 1979 3M's lawyers advised the company to conceal that the chemical in the blood was PFOS. See Exhibit F.

We know that 3M concealed from the United States Environmental Agency for more than 20 years that PFAS was in human blood. Its actions delayed scientific knowledge for decades while the company reaped huge profits from the sale of its PFAS products.

We know that by 1976 3M knew the chemicals were in the blood of workers who handled them at levels higher than the general population.

We know that by 1978, it knew the chemicals killed monkeys.

We know that 1981 it knew the chemicals caused abnormalities in pregnant rats.

We know that in 1988, a company that purchased PFAS firefighting foam complained to 3M that it had falsely claimed the product was biodegradable. See Exhibit G.

We know that a few months later, a 3M employee wrote: "I don't think it is in 3M's long term interest to perpetrate the myth that these fluorochemical surfactants are biodegradable. It is probable that this misconception will eventually be discovered, and when that happens, 3M will

likely be embarrassed, and we and our customers may be fined and forced to immediately withdraw products from the market." He added that if 3M wants to continue to sell these products, "3M has to accurately describe the environmental properties of these chemicals." See Exhibit H.

3M continued to sell the products.

We learned from testimony in our lawsuit that by 1993, 3M knew that there was some evidence that lactating goats transferred PFAS to their kids in milk and it was likely that human mothers would similarly transfer PFAS to their babies. We found no evidence that 3M published this study or followed-up with an analysis of human milk.

We know that not until 23 years later did the EPA issue a health advisory cautioning pregnant women and breast-fed infants to avoid these chemicals out of concern that, just like with goats, a mother can transfer the chemicals to her fetus or baby through the placenta or breastmilk.

We know that in 2000, under pressure from the EPA, 3M announced a phase-out of the production of some PFAS. 3M publicly suggested that it had recently learned PFAS was widely present in human blood. But 3M knew these chemicals were in human blood at least twenty-five years earlier, when the two scientists notified 3M they found the chemicals in blood banks.

We know that in 2006, the EPA fined 3M \$1.5 million for withholding studies about the toxicity of these chemicals, in some cases for decades, that the company should have reported under the Toxic Substances Control Act (TSCA), TSCA requires a company to immediately notify the EPA of information that shows that a product presents a substantial risk of injury to human health or the environment.

Unfortunately, that didn't end the saga. 3M then began a campaign to create "defensive

barriers to litigation." 3M worked to "command the science" about the human health and ecological risks posed by these chemicals. It selectively funded outside research in exchange for the right to review and edit scientific papers about PFAS before they were published. It developed a relationship with a professor and editor of academic journals who reviewed about one-half the studies of these chemicals by other scientists before they were published. We believe that 3M paid him at least \$2 million, based on documents uncovered in our lawsuit. He told 3M he made sure in his timesheets "there was no paper trail to 3M." The professor shared manuscripts of other scientists with 3M before they were published and advised 3M to "keep 'bad' papers out of the literature otherwise in litigation situations they can be a large obstacle to refute." See Exhibit I.

I have attached to my testimony as Exhibit K. a brief the State of Minnesota filed in court in 2017 asking for leave to seek punitive damages in our lawsuit. The brief provides a chronology of what we discovered about what 3M knew about the science and when it knew it, as well as its decades-long efforts to suppress scientific understanding of the impact of these chemicals on human health and the environment.

Almost 25 years ago, 3M expressed this goal: "continue to maintain regulatory approval to sell PFCs as long and as broadly as we can." Unfortunately, it succeeded for more than 50 years. And now states and local governments around the nation are now grappling with the consequences.

There are many ways for Congress to be part of the solution, such as the following:

First, lawsuits like the one I filed against 3M are complex and take years to complete. Congress should designate PFAS as "hazardous substances" under the Comprehensive

Environmental Response, Compensation, and Liability Act ("CERCLA") to help support clean-up of contaminated sites, including military sites contaminated from the use of firefighting foam in training exercises.

Second, Congress should require the listing of PFAS on the federal Toxic Release Inventory so that communities learn about releases of these chemicals

Third, federal agencies should be required to help communities conduct sampling and analysis to determine the scope and extent of PFAS contamination.

Fourth, a great deal of PFAS contamination occurred from the use of firefighting foam in training exercises at airports and military installations. Congress should ban the use of PFAS in firefighting foam at airports and military installations as quickly as possible and prohibit its use in training exercises.

Thank you for the opportunity to testify.¹

¹ The documents attached or referred to in this testimony are from public court records in State of Minnesota vs. 3M Company, Hennepin County District Court File No. 27-CV-10-28862, including the attached Memorandum of Law in Support of Plaintiff State of Minnesota's Motion to Amend Complaint to Seek Punitive Damages, and the State of Minnesota's Trial Exhibits currently posted on the Minnesota Attorney General's website at <https://www.ag.state.mn.us/Office/Cases/3M/StatesExhibits.asp>.